ORIGINAL



Transcript Exhibit(s)

Docket #(s): US-02987A-05-0693		
Exhibit #: <u>S-1, A-1, A-2, A-3,</u> <u>A-5, A-6</u>	A-U,	

MEMORANDUM

RE(

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TO:

Docket Control Center

APR 03 2006

AZ CORP COMMISSION DOCUMENT CONTROL

FROM:

Ernest G. Johnson

Director

Utilities Division

LEGAL DIV. ARIZ. CORPORATION COMMISSION

DATE:

April 3, 2006

RE:

JOHNSON UTILITIES, L.L.C. DBA JOHNSON UTILITIES COMPANY -APPLICATION FOR AN EXTENSION OF ITS CERTIFICATE OF

CONVENIENCE AND NECESSITY (DOCKET NO. WS-02987A-05-0695)

Attached is the Staff Report for Johnson Utilities, L.L.C. dba Johnson Utilities Company. Staff recommends approval with conditions for compliance.

EGJ:LAJ:red

Originator: Linda A. Jaress



Service List for: Johnson Utilities, L.L.C. dba Johnson Utilities Company Docket No. WS-02987A-05-0695

Mr. Richard L. Sallquist Sallquist, Drummond & O'Connor, P.C. 4500 S. Lakeshore Drive, Suite 339 Tempe, Arizona 85282

Mr. Brian Tompsett Executive Vice President Johnson Utilities Company 5230 East Shea Blvd. Scottsdale, Arizona 85254

Mr. Christopher C. Kempley Chief Counsel, Legal Division Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007

Mr. Ernest G. Johnson Director, Utilities Division Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007

Ms. Lyn Farmer Chief, Hearing Division Arizona Corporation Commission 1200 West Washington Street Phoenix, Arizona 85007

STAFF REPORT UTILITIES DIVISION ARIZONA CORPORATION COMMISSION

JOHNSON UTILITIES, L.L.C. DBA JOHNSON UTILITIES COMPANY

DOCKET NO. WS-02987A-05-0695

APPLICATION FOR AN EXTENSION OF ITS CERTIFICATE OF CONVENIENCE AND NECESSITY

EXECUTIVE SUMMARY JOHNSON UTILITIES, L.L.C. DBA JOHNSON UTILITIES COMPANY DOCKET NO. WS-02987A-05-0695

On September 30, 2005, Johnson Utilities, L.L.C. dba Johnson Utilities Company, ("Johnson") filed an application for approval to extend the area of its Certificate of Convenience and Necessity ("CC&N"). The requested area is one section of land, approximately 640 acres, upon which the developments known as Silverado Ranch and Skyline View Estates will be located.

Johnson currently has pending some compliance issues being addressed in other dockets. Staff believes that once the issues related to non-compliance with previous Commission decisions are resolved, Johnson should be found to be a fit and proper entity to serve the extension area and that it would be in the public interest for the Commission to approve this application and adopt certain requirements of the Company.

Staff recommends that the Company be ordered to charge its current rates to the customers in the extension area until the rates and charges are changed by Commission order.

Staff recommends that the Commission require Johnson to file the following as compliance items in this docket and by the recommended date:

- 1. A copy of its amended or updated Designation of Assured Water Supply from Arizona Department of Water Resources ("ADWR") to include the service area at issue within one year of the effective date of the final decision in this matter.
- 2. Copies of its Aquifer Protection Permit and Section 208 Plan amendments which indicate approval of the expansion of the Section 11 wastewater treatment plant to 2.0 million gallons per day ("MGD") within two years of the final decision in this matter. The Company should file the same for the Copper Basin plant within two years.
- 3. Copies of the Arizona Department of Environmental Quality ("ADEQ") Approval to Construct for water facilities needed to serve the requested extension area within two years of the final decision in this matter.
- 4. Copies of the ADEQ Approval to Construct for wastewater facilities needed to serve the requested extension area within two years of the final decision in this matter.

Staff further recommends that if Johnson does not comply with the recommendations listed above, that the decision approving this extension, after due process, be null and void.

STAFF ACKOWLEDGEMENT

The Staff Report for Johnson Utilities, L.L.C. dba Johnson Utilities Company, Docket No. WS-02987A-05-0695, was prepared by the Staff members listed below. Linda Jaress performed the review and analysis of the Company's application and Marlin Scott, Jr. performed the engineering analysis.

Linda A. Jaress

Executive Consultant III

Marlin Scott, Jr.

Utilities Engineer

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Johnson Utilities, L.L.C. dba Johnson Utilities Company Docket No. WS-02987A-05-0695 Page 1

Introduction

Johnson Utilities, L.L.C. dba Johnson Utilities Company ("Johnson" or "the Company") provides water and wastewater service to approximately 9,200 water and sewer customers in various portions of Pinal County within the vicinity of Queen Creek and the town of Florence. On September 30, 2005, Johnson filed an application for approval to extend the area of its Certificate of Convenience and Necessity ("CC&N"). The requested area is one section of land, approximately 640 acres, upon which the developments known as Silverado Ranch and Skyline View Estates will be located. Attached as Exhibit 1 is a map and legal description of the proposed service territory.

The Water System

The proposed area will be served by two of Johnson's three water systems, the Sun Valley and Johnson Systems, which were recently interconnected. The Company will be interconnecting the third system later this year. The total production capacity of the Company's twelve wells is 5,082 gallons per minute. Johnson's water system is also comprised of booster pumps, pressure tanks, a distribution system and approximately 4 million gallons of storage capacity. The Company is in the process of interconnecting its three water systems which will provide flexibility and improve reliability. Staff concludes that the modified system has adequate production and storage capacity to serve the existing and proposed CC&N area. Attached as Exhibit 2 is Staff's Engineering Report which describes Johnson's water system and capacity in further detail.

Financing and Capital Structure - Water

The Company has submitted a cost analysis which anticipates that the cost of additional plant to provide water service in the extension area will total \$2.7 million. The water facilities for this extension will be funded by advances in aid of construction and offsite facility hookup fees. Staff concludes that the cost estimates seem reasonable but is not making a "used and useful" determination at this time.

Arizona Department of Environmental Quality ("ADEQ") - Water

ADEQ has determined that Johnson's water system is currently delivering water that meets water quality standards required by the Arizona Administrative Code, Title 18, Chapter 4. All of Johnson's wells deliver water which is in compliance with the new arsenic standard of 10 parts per billion.

Arizona Department of Water Resources ("ADWR")

Johnson is located within the Phoenix Active Management Area. Staff recommends that Johnson file the updated or amended Designation of Assured Water Supply to include the service area at issue within one year of the effective date of the final decision in this matter.

Wastewater System

The proposed extension area will be served by the Section 11 System, one of Johnson's three wastewater systems. Based upon the Company's application, it is anticipated that Johnson could be serving approximately 2,100 laterals in the proposed extension area at the end of five years. The initial flow of wastewater from the extension area will go to the Section 11 wastewater treatment plant but eventually will go to a proposed Copper Basin plant. Staff concludes that Johnson has and will have wastewater treatment capacity to serve the exiting customers and customers within the proposed CC&N extension area within the five year planning period. Exhibit 2, attached, further supports this conclusion.

Financing and Capital Structure - Wastewater

The Company expects that the costs of the facilities to provide wastewater service to the extension area will be \$2.7 million. Those facilities will be funded by advances in aid of construction and offsite facility hookup fees. Staff concludes that the cost estimates seem reasonable but is not making a "used and useful" determination at this time.

Arizona Department of Environmental Quality - Wastewater

ADEQ has determined that the Section 11 wastewater system is in compliance with ADEQ regulations.

The Company was issued an Aquifer Protection Permit ("APP") in 1998 for its 1.6 Million Gallon per Day ("MGD") Section 11 wastewater treatment plant and the Company is preparing an application to amend its APP to expand the plant to 2.0 MGD.

Arizona Corporation Commission

The 14 complaints against Johnson which were logged by the Arizona Corporation Commission's ("the Commission") Consumer Services Section in 2005 and 2006 have been resolved.

Johnson is currently out of compliance with Commission decisions. In Decision No. 65840, dated April 22, 2003, the Commission ordered Johnson to file with the Commission a copy of any Notice of Violation ("NOV") issued against it by ADEQ within seven days from receipt of such notice. The Decision goes on to state that if the ADEQ notice is not timely filed, "...the Director shall, upon becoming aware of such failure, commence an Order to Show Cause Proceeding against JUC forthwith, seeking such sanctions and Orders as the Director deems appropriate." On January 10, 2006, Staff was made aware of a late filing of a NOV by Johnson. Staff further researched the docket and found three similar violations. In each case, Johnson's filing of its NOV exceeded the timeframe directed in this order. Johnson has offered its explanation. Nevertheless, to be consistent with the order, Staff has filed a complaint and petition for an order to show cause against Johnson on March 27, 2006.

Also, Decision No. 68235, Decision No. 68236, and Decision No. 68237, all dated October 25, 2005, contained language requiring Johnson to file a \$500,000 bond. In substitution for the bond, Johnson has filed evidence of a letter of credit for the same amount. The late filing of the NOVs along with the substitution of a letter of credit for the bond, causes Johnson to be out of compliance with Commission decisions. On March 14, 2006, Johnson filed an application to amend Decision Nos. 68235, 68236, and 68237. Pending resolution of the compliance issues and Johnson's March 14th filing, Staff recommends that a decision approving the extension at issue be withheld.

The previously mentioned decisions contained language requiring Johnson to file quarterly reports relating to the status of the pending La Osa and Sonoran litigation and to file Affiliate Interest reports and a rate case. The decisions also required the \$500,000 performance bond to be increased to \$1.0 million if Johnson is named as a defendant in either the La Osa or Sonoran lawsuits. Staff does not believe it necessary to repeat those requirements in this docket as the result would be duplicative filing in an additional docket. However, Staff believes that those requirements as set forth in previous decisions should remain in place even if not imposed as a specific condition for approval of this application.

Conclusions and Recommendations

Staff believes that once the issues related to non-compliance with previous Commission decisions are resolved, Johnson should be found to be a fit and proper entity to serve the extension area and that it would be in the public interest for the Commission to approve this application and adopt certain requirements of the Company.

Staff recommends that the Company be ordered to charge its current rates to the customers in the extension area until the rates and charges are changed by Commission order.

Staff recommends that the Commission require Johnson to file the following as compliance items in this docket and by the recommended date:

- 1. A copy of its amended or updated Designation of Assured Water Supply from ADWR to include the service area at issue within one year of the effective date of the final decision in this matter.
- 2. Copies of its Aquifer Protection Permit and Section 208 Plan amendments which indicate approval of the expansion of the Section 11 wastewater treatment plant to 2.0 MGD within two years of the final decision in this matter. The Company should file the same for the Copper Basin plant within two years.
- 3. Copies of the ADEQ Approval to Construct for water facilities needed to serve the requested extension area within two years of the final decision in this matter.

Johnson Utilities, L.L.C. dba Johnson Utilities Company Docket No. WS-02987A-05-0695 Page 4

4. Copies of the ADEQ Approval to Construct for wastewater facilities needed to serve the requested extension area within two years of the final decision in this matter.

Staff further recommends that if Johnson does not comply with the recommendations listed above, that the decision approving this extension, after due process, be null and void.

MEMORANDUM

TO:

Linda Jaress

Executive Consultant III

Utilities Division

FROM:

Barb Wells

Information Technology Specialist

Utilities Division

THRU:

Del Smith OS

Engineering Supervisor

Utilities Division

DATE:

October 19, 2005

RE:

JOHNSON UTILITIES, L.L.C. (DOCKET NO. WS-02987A-05-0695)

The area requested by Johnson for an extension for water and wastewater has been plotted with no complications using the legal description provided with the application (a copy of which is attached).

Also attached is a copy of the map for your files.

:bsw

Attachments

cc: Docket Control

Mr. Richard Sallquist

Ms. Deb Person (Hand Carried)

File

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WS-2987 (6)

Sewer

Johnson Utilities Company

Application for Extension for Water & Sewer **Johnson Utilities Company** Docket No. WS-02987A-04-0288



Application for Extension for Water & Sewer Johnson Utilities Company Docket No. WS-02987A-05-0695

B

Yanos

Legal Description of the Requested Area

ALL OF SECTION 3, TOWNSHIP 3 SOUTH, RANGE 9 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA

MEMORANDUM

DATE:

March 24, 2006

TO:

Linda Jaress

Executive Consultant III

FROM:

Marlin Scott, Jr W Utilities Engineer

RE:

Johnson Utilities Company – Water and Wastewater Divisions

Docket No. WS-02987A-05-0695 (CC&N Extension)

Introduction

Johnson Utilities L.L.C. dba Johnson Utilities Company ("Company") has applied to extend its Certificate of Convenience and Necessity ("CC&N") for its water and wastewater divisions. The requested area will add one square-mile or 640 acres to the Company's existing 61.5 square-miles of water certificated area and 73.0 square-miles of wastewater certificated area to provide service to the proposed developments known as Silverado Ranch and Skyline View Estates. The Company serves a community between Queen Creek and Florence in Pinal County.

Capacities

Existing Water Utility Plants

The Company operates three water systems; Johnson (Public Water System (PWS) #11-128), Sun Valley (PWS #11-116), and Wildhorse (PWS #245) Systems. The requested area will be served by the Johnson and Sun Valley Systems which were recently interconnected. According to water use data submitted by the Company, the Company has 12 wells producing 5,802 gallons per minute ("GPM"), 3.97 million gallons of storage capacity, and distribution system serving approximately 14,000 service connections. The Company will be interconnecting the third system, Wildhorse System, to the modified Johnson System later this year.

Based on historical growth rates, it is anticipated that the existing entire water service area could grow to approximately 21,000 connections at the end of five years. The Company has predicted an additional 2,108 connections for the proposed CC&N extension at the end of five years, resulting in a projected total customer base of approximately 23,110 at the end of five years. Based on the existing well production and

Linda Jaress March 24, 2006 Page 2

storage capacities, the modified Johnson System can serve approximately 20,700 service connections.

Existing Wastewater Utility Plants

The Company operates three wastewater systems; Section 11, Precision and Pecan Systems. The requested area will be served by the Section 11 System consisting of a 1.6 million gallon per day ("MGD") extended aeration and aerobic lagoon treatment plant. (Since the Company reported all three systems' number of lift stations, lineal feet of force/collection mains and customer count as one system, separate system inventory was not available.)

Based on historical growth rates, it is anticipated that the existing entire wastewater service area could grow to approximately 21,000 laterals at the end of five years. In this application, the Company has predicted an additional 2,108 laterals for the proposed CC&N extension at the end of five years, resulting in a projected total customer base of approximately 23,110 laterals at the end of five years. Based on the existing Section 11 treatment plant capacity, the system can serve approximately 9,200 service laterals.

Proposed Water and Wastewater Plant Facilities

The Company anticipates the costs to serve the new area in the next five years to reach \$5,531,077. The facilities for this area will be constructed as needed. The development will be funded through advances in aid of construction and hook-up fees to construct the following facilities:

1.	Water off-site plant facilities	\$ 668,150
2.	Water on-site plant facilities	\$2,083,900
3.	Wastewater off-site plant facilities	\$ 736,177
4.	Wastewater on-site plant facilities	\$2,042,850

Total: \$5,531,077

The wastewater flow from this development will initially go to the Section 11 wastewater treatment plant ("WWTP") and will ultimately go to a proposed Copper Basin WWTP that will have a capacity of 3.0 MGD. The Aquifer Protection Permit for the Section 11 WWTP is permitted for a capacity of 1.6 MGD and is currently being amended to be increased to 2.0 MGD.

Conclusions

Staff concludes that the Company's existing water and wastewater systems will have adequate well production, storage and wastewater treatment capacities to serve the existing customers and proposed CC&N extension area within a conventional five year

Linda Jaress March 24, 2006 Page 3

planning period and can reasonably be expected to develop additional production, storage and wastewater treatment as required in the future.

Staff concludes that the proposed water and wastewater plant facilities for the proposed development and its cost estimate totaling \$5,531,077 seem reasonable. However, no "used and useful" determination of the proposed water and wastewater plant facilities was made and no particular treatment should be inferred for rate making or rate base purposes.

Arizona Department of Environmental Quality ("ADEQ") Compliance

Compliance Status

ADEQ regulates the Company's water and wastewater facilities under the following identification numbers:

- 1. Johnson Water System, PWS #11-128
- 2. Sun Valley Water System, PWS #11-116
- 3. Section 11 Wastewater Treatment Plant, Inventory #103081

Based on compliance information submitted by the Company, the above water systems had no deficiencies and ADEQ has determined these water systems are currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, and Chapter 4.

Based in the most current information available to ADEQ, ADEQ has indicated the Section 11 wastewater system is in compliance with ADEQ regulations.

Certificate of Approval to Construct

The ADEQ Certificates of Approval to Construct ("ATC") for water and wastewater facilities needed to serve the requested area have not been submitted by the Company. Staff recommends that the Company docket as a compliance item in this case within two years of the effective date of an order in this proceeding copies of the ATCs for water and wastewater facilities needed to serve the requested area issued by ADEQ.

Arsenic

The Company indicated its arsenic levels for its well source range from 2 parts per billion ("ppb") to 8 ppb. Based on these levels, the Company is in compliance with the new arsenic standard.

Aguifer Protection Permit ("APP") and Section 208 Plan Amendment

The Company was issued a signed APP, dated September 4, 1998, for its 1.6 MGD Section 11 wastewater treatment plant and is in the process of preparing an amendment for expansion of its WWTP from 1.6 to 2.0 MGD. Since an APP and the Section 208 Plan amendments represent fundamental authority for the designation of a wastewater service area and a wastewater provider, Staff recommends that the Company file with Docket Control, as compliance items in this docket within two years after a decision is issued in this proceeding, copies of the APP and Section 208 Plan amendments that indicate approval of the expansion of the WWTP to 2.0 MGD. Also, the Company should file the same for the Copper Basin plant within two years.

Arizona Department of Water Resources Compliance

Compliance Status

The Company is located within the Phoenix Active Management Area ("AMA") and is in compliance with its reporting and conservation requirements.

Designation of Assured Water Supply

The extension area is within the Phoenix AMA. As such, each developer will be required to demonstrate an assured water supply from ADWR for the entire development. Presently, the Company holds a "Designation of Assured Water Supply" for its existing service area. It is assumed that the Company will continue to elect this alternative. Therefore, Staff recommends that the Company shall update or amend its "Designation of Assured Water Supply" to include the service areas in this CC&N extension application. Staff further recommends that the Company docket as a compliance item in this case within one year of the effective date of an order in this proceeding a copy of such an amended ADWR certificate.

Arizona Corporation Commission Compliance

The Company is currently out of compliance with Commission decisions. The non-compliance issues are being addressed in another CC&N extension case in a Staff Report dated March 17, 2006, for Docket No. WS-02987A-04-0869.

Curtailment Tariff

The Company has an approved curtailment tariff that became effective on July 9, 2005.

Linda Jaress March 24, 2006 Page 5

Summary

Conclusions

- A. Staff concludes that the existing water and wastewater systems will have adequate source production, storage capacity and wastewater treatment capacity to serve the existing customers and proposed CC&N extension area within a conventional five year planning period and can reasonably be expected to develop additional production, storage and wastewater treatment capacity as required in the future.
- B. Staff concludes that the proposed water and wastewater plant facilities for the proposed development and its cost estimate totaling \$5,531,077 seem reasonable. However, no "used and useful" determination of the proposed water and wastewater plant facilities was made and no particular treatment should be inferred for rate making or rate base purposes.
- C. ADEQ regulates the Company's water systems under PWS #11-128 and #11-116. Based on compliance information submitted by the Company, these systems had no deficiencies and ADEQ has determined that these systems is currently delivering water that meets water quality standards required by Arizona Administrative Code, Title 18, and Chapter 4.
- D. ADEQ regulates the Company's wastewater system under Inventory #103081 and has indicated the facility is in compliance with ADEQ regulations.
- E. The Company indicated its arsenic levels for its well source range from 2 to 8 ppb. Based on these levels, the Company is in compliance with the new arsenic standard.
- F. The Company is within the Phoenix AMA and is in compliance with its reporting and conservation requirements.
- G. The Company is currently out of compliance with Commission decisions. The non-compliance issues are being addressed in another CC&N extension case in a Staff Report dated March 17, 2006, for Docket No. WS-02987A-04-0869.
- H. The Company has an approved curtailment tariff that became effective on July 9, 2005.

Recommendations

1. Staff recommends that the Company docket as a compliance item in this case within two years of the effective date of an order in this proceeding copies of the ATCs for water and wastewater facilities needed to serve the requested area issued by ADEQ.

Linda Jaress March 24, 2006 Page 6

- 2. Staff recommends that the Company shall update or amend its "Designation of Assured Water Supply" to include the service areas in this CC&N extension application. Staff further recommends that the Company docket as a compliance item in this case within one year of the effective date of an order in this proceeding a copy of such an amended ADWR certificate.
- 3. Staff recommends that the Company file with Docket Control, as compliance items in this docket within two years after a decision is issued in this proceeding, copies of the APP and Section 208 Plan amendments that indicate approval of the expansion of the Section 11 WWTP to 2.0 MGD. The Company should file the same for the Copper Basin plant within two years.

JOHNSON UTILITIES L.L.C

5230 East Shea Boulevard * Scottsdale, Arizona 85254 PH: (480) 998-3300; FAX: (480) 483-7908 RECEIVED

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September 30, 2005

AZ CORP COMMISSION DOCUMENT CONTROL

Docket Control Arizona Corporation Commission 1200 W. Washington St. Phoenix, AZ 85007

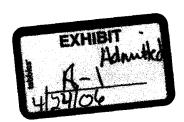
Attached is an application by Johnson Utilities Company, L.L.C. for an Extension of Certificate of Convenience and Necessity. The purpose of this application is to expand the existing service area to include an area encompassing the developments known as Silverado Ranch and Skyline View Estates.

Along with the items requested in the application Johnson Utilities is submitting a letter from George Cannon with Montalbano Homes and from Michael Cohen with Skyline Properties, LLC requesting service to each of their properties that make up the entire requested area. The letters are attached to the application hereto as Attachment 9 and 10 respectively. Also attached is the preliminary engineering report for Silverado Ranch attached hereto as attachment 11, and a letter from the engineer stating that that the system was designed to include the Skyline View Project attached hereto as Attachment 12. Thank you for your time and consideration in this matter.

Sincerely,

Johnson Utilities, L.L.C.

Daniel Hodges



ARIZONA CORPORATION COMMISSION

APPLICATION FOR AN EXTENSION OF CERTIFICATE OF CONVENIENCE AND NECESSITY

WATER AND/OR SEWER

A. The name, address and telephone number of the Applicant is:

Johnson Utilities, L.L.C. 5230 E. Shea Blvd., Suite 200 Scottsdale, AZ. 85254 480-998-3300

B. The name, address, and telephone number of management contact is:

Brian P. Tompsett Johnson Utilities, L.L.C. 5230 E. Shea Blvd., Suite 200 Scottsdale, AZ. 85254 480-998-3300

C. List the name, address and <u>telephone number</u> of the operator certified by the Arizona Department of Environmental Quality.

Robert Gonzales Johnson Utilities, L.L.C. 968 E. Hunt Hwy. Queen Creek, AZ. 85242-7450 480-987-9870

D. List the name, address and telephone number of the attorney for the Applicant:

Richard Sallquist Sallquist, Drummond & O'Connor 4500 South LakeShore Dr., Suite 339 Tempe, AZ. 85282 480-839-5202

- E. Attach the following documents that apply to you:
 - 1. Certificate of Good Standing (if corporation)

See Attachment 1

2. Corporate Resolution Authorizing this application (if required by the corporation's Articles of Incorporation)

Not Applicable

F. Attach a legal description of the area requested by either CADASTRAL (quarter section description) or Metes and Bounds survey. References to parcels and dockets will not be accepted.

See Attachment 2

G. Attach a detailed map using the form provided as attachment B. Shade and outline the area requested. Also indicate the present certificated area by using different colors.

See Attachment 3

H. Attach a current balance sheet and profit and loss statement

See Attachment 4

- I. Provide the following information:
 - 1. Indicated the estimated number of customers, by class, to be served in the new area in each of the next five years:

See Attachment 5

2. (WATER ONLY) Indicate the projected annual water consumption, in gallons, for each of the customer classes in the new area for each of the next five years.

See Attachment 5

3. Indicate the total estimated annual operating revenue from the new area for each of the next five years.

See Attachment 6

• Complete Attachment "D" (Water Use Data Sheet) for the past 13 months.

See Attachment 7

4. Indicate the total estimated annual operating expenses attributable to the new area for each of the next five years.

See Attachment 6

J. Total estimated cost to construct utility facilities to serve customers in the requested area:

\$5,293,000 for water and sewer

K. Explain method of financing utility facilities (see paragraph 8 of instructions)

The construction of the additional utility facilities needed to serve the area covered by this Application will be financed primarily by advances in aid of construction and hook-up fees in accordance with Commission regulations and Johnson Utilities applicable tariffs, as well as pursuant to the terms of any main extension agreements between Johnson Utilities, Montalbano Homes, and Skyline View Properties, LLC. A copies of all fully executed main extension agreements for water facilities between parties shall be filed with the Commission in support of this Application when completed.

L. Estimated starting and completion date of construction of utility facilities:

Start date: April, 2006 Co

Completion date: April, 2011

- M. Attach the following permits:
 - 1. Franchise from either the City or County for the area requested.

An application for the Extension of the Utility Franchise with Pinal County has been submitted and will be provided to the Commission as soon as it is received by Johnson Utilities. The application letter to Pinal County is attached hereto as Attachment 13.

2. Arizona Department of Environmental Quality or designee's approval to construct facilities

Arizona Department of Environmental Quality Approvals to Construct the facilities to serve the requested extension area will be provided to the Commission as soon as they are received by Johnson Utilities.

3. Arizona State Land Department approval. (If you are including any State land in your requested area this approval is needed.)

Not Applicable

4. U.S. Forest Service approval-

Not Applicable

5. (WATER ONLY) If the area requested is within an Active Management Area, attach a copy of the utility's Designation of an Assured Water Supply, or the developer's Certificate of 100 year Assured Water Supply issued by the Arizona Department of Water Resources.

Attachment 8

• If the area requested is outside an Active Management Area, attach the developer's Adequacy Statement issued by the Arizona Department of Water Resources if applied for by the developer.

Not Applicable

• If the area requested is outside an Active Management Area and the developer does not obtain an Adequacy Statement, provide sufficient detailed information to prove that adequate water exists to provide water to the area requested.

Not Applicable

(Signature of Authorized Representative)

(Print of Type Name Here)

Vice President

SUBSCRIBED AND SWORN to before me this 3 day of October, 2005

NOTARY PUBLIC

My Commission Expires 12.23.2008

CINDY L. GIBSON
Notary Public - Arizona
MARICOPA COUNTY
My Comm. Exp. 12-23-2008

ATTACHMENT 1



STATE OF ARIZONA



Office of the CORPORATION COMMISSION

CERTIFICATE OF GOOD STANDING

To all to whom these presents shall come, greeting:

I, Brian C. McNeil, Executive Secretary of the Arizona Corporation Commission, do hereby certify that

***JOHNSON UTILITIES, L.L.C. ***

a domestic limited liability company organized under the laws of the State of Arizona, did organize on the 5th day of June 1997.

I further certify that according to the records of the Arizona Corporation Commission, as of the date set forth hereunder, the said limited liability company is not administratively dissolved for failure to comply with the provisions of A.R.S. section 29-601 et seq., the Arizona Limited Liability Company Act; and that the said limited liability company has not filed Articles of Termination as of the date of this certificate.

This certificate relates only to the legal existence of the above named entity as of the date issued. This certificate is not to be construed as an endorsement, recommendation, or notice of approval of the entity's condition or business activities and practices.



IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official seal of the Arizona Corporation Commission. Done at Phoenix, the Capital, this 1st Day of December, 2004, A. D.

Executive Secretary

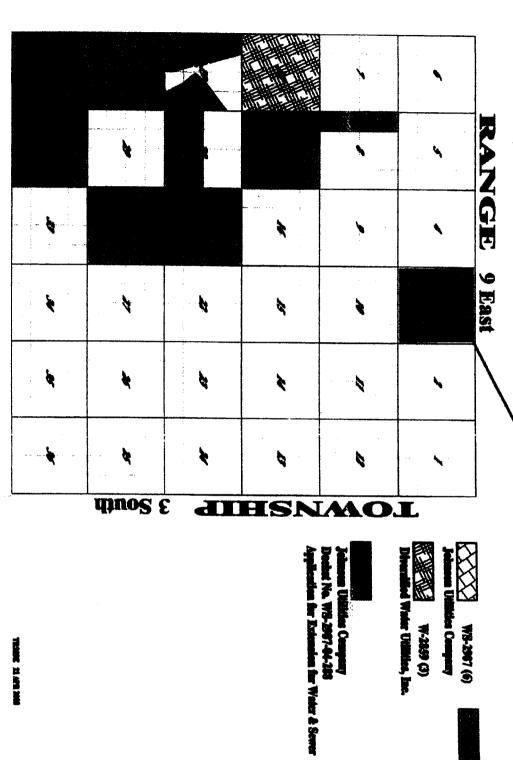
By Horne Africke

ATTACHMENT 2

Legal Description of the Requested Area

ALL OF SECTION 3, TOWNSHIP 3 SOUTH, RANGE 9 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA

ATTACHMENT 3



SILVERADO RANCH
AND
SKYLINE VIEW

COUNTY: Pinal

ATTACHMENT 4





To The Members of Johnson Utilities, L.L.C. Scottsdale, Arizona

We have compiled the accompanying balance sheet of Johnson Utilities, L.L.C. as of December 31, 2004 and the related statement of income for the year then ended, in accordance with the Statements on Standards for Accounting and Review Services issued by the American Institute of Certified Public Accountants.

A compilation is limited to presenting in the form of financial statements information that is the representation of management. We have not audited or reviewed the accompanying financial statements and, accordingly, do not express an opinion or any other form of assurance on them.

Management has elected to omit substantially all of the disclosures and the statement of cash flows required by generally accepted accounting principles. If the omitted disclosures and statement of cash flows were included in the financial statements, they might influence the user's conclusions about the Company's financial position, results of operations, and cash flows. Accordingly, these financial statements are not designed for those who are not informed about such matters.

The Company is treated as a partnership for federal income tax purposes. Consequently, federal income taxes are not payable by, or provided for, the Company. Members are taxed individually on their shares of the Company's earnings. The Company's net income or loss is allocated among the members in accordance with the operating agreement of the Company.

This report is intended solely for the information and use of the owners, management, and others within the company and is not intended to be and should not be used by anyone other than these specified parties.

Wilmann + Conganz

Ullmann & Company, P.C. Certified Public Accountants

March 22, 2005

Johnson Utilities, L.L.C. Balance Sheet December 31, 2004

ASSETS

Plant in Service Less: Accumulated Depreciation Net Utility Plant in Service Construction Work in Progress Net Utility Plant Construction Work in Progress Net Utility Plant Service Cash Secure Assets Cash Accounts Receivable Other Receivable Other Receivable Other Receivables Total Current Assets Deferred Legal Fees Deferred Legal Fees Deferred Engineering Fees Total Other Assets Total Other Assets Total Other Assets Member's Capital Contributions in Aid of Construction Current Portion of Advances in Aid of Construction Customer Deposits Account Payable Current Portion of Advances in Aid of Construction Customer Deposits Account Taxes Total Current Liabilities Advances in Aid of Construction, Less Current Portion Foregreed Liabilities Advances in Aid of Construction, Less Current Portion Foregreed Liabilities Advances in Aid of Construction, Less Current Portion Foregreed Liabilities Secured Taxes Advances in Aid of Construction, Less Current Portion Foregreed Liabilities Advances in Aid of Construction, Less Current Portion Foregreed Liabilities Secure Sec	Utility Plant	
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Long-Term Debt Current Liabilities Accounts Payable Current Portion of Advances in Aid of Construction Customer Deposits Accrued Taxes Total Current Liabilities Advances in Aid of Construction, Less Current Portion \$ 772,000 \$ 2,140,236 333,000 173,317 234,177 \$ 234,177 \$ 2,880,730		
Current Liabilities Accounts Payable Current Portion of Advances in Aid of Construction Customer Deposits Accrued Taxes Total Current Liabilities Advances in Aid of Construction, Less Current Portion \$ 2,140,236 333,000 173,317 234,177 \$ 234,177 \$ 2,880,730	Contributions in Aid of Construction	\$ 34,719,161
Current Liabilities Accounts Payable Current Portion of Advances in Aid of Construction Customer Deposits Accrued Taxes Total Current Liabilities Advances in Aid of Construction, Less Current Portion \$ 2,140,236 333,000 173,317 234,177 \$ 234,177 \$ 2,880,730		
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Accounts Payable Current Portion of Advances in Aid of Construction Customer Deposits Accrued Taxes Total Current Liabilities Advances in Aid of Construction, Less Current Portion \$ 2,140,236 333,000 173,317 234,177 \$ 2,880,730		
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Accrued Taxes Total Current Liabilities Peferred Liabilities Advances in Aid of Construction, Less Current Portion \$ 234,177 \$ 2,880,730 \$ 22,114,867		
Total Current Liabilities Deferred Liabilities Advances in Aid of Construction, Less Current Portion \$ 2,880,730 \$ 22,114,867	•	•
Deferred Liabilities Advances in Aid of Construction, Less Current Portion \$ 22,114,867		
Advances in Aid of Construction, Less Current Portion \$ 22,114,867	Total Current Liabilities	¥ 2,000,100
Advances in Aid of Construction, Less Current Portion \$ 22,114,867	Deferred Liabilities	
7.0000000000000000000000000000000000000	Advances in Aid of Construction, Less Current Portion	\$ 22,114,867
Total Member's Capital & Liabilities \$ 66,390,667.	, Midiloop iii , and of contractionally more contract.	
	Total Member's Capital & Liabilities	\$ <u>66,390,667.</u>

See Accountants' Compliation Report

Johnson Utilities, L.L.C. Statement of Income December 31, 2004

Operating Revenue	
Water Sales	\$ 4,558,747
Sewer Fees	2,518,206
Other Revenue	540,856
Total Revenue	\$ 7,617,809
Operating Expenses	. •
Purchased Water	\$ 606,867
Purchased Power	456,162
Repairs & Maintenance	99,644
Outside Services	3 , 721 ,25 6
Water Testing	159,832
Insurance	105,090
Sludge Removal	53,53 3
Wastewater Treatment	1,070
Miscellaneous Operating Expense	301,219
Depreciation and Amortization	304,4 4 9
Taxes Other Than Income	10,265
Property Taxes	97,798
Total Operating Expenses	\$_5,917,185
Net Operating Income	\$ <u>1,700,624</u>
Other Income (Expenses)	₾ 04 C44
Interest Income	\$ 24,641
Non-Utility Income	1,767
Interest Expense	(67,678)
Total Other Income (Expenses)	\$ <u>(41,270)</u>
Net Income	\$ <u>1,659,354</u>

ATTACHMENT 5

The estimated numbers or customers to be served in each of the first five years of water utility service to the area covered by this Application are as follows:

Residential:

	Silverado Ranch:	Skyline View:	<u>Total</u>
1st Year	368	80	448
2nd Year	795	160	955
3rd Year	1204	240	1444
4th Year	1598	280	1878
5th Year	1828	280	2108

The projected annual water consumption, in gallons, for each of the customer classes in the new area for each of the next five years:

Residential Water Usage:

in Gallons	
1st Year	21,167,328
2nd Year	66,289,646
3rd Year	113,349,152
4th Year	156,959,517
5th Year	188,332,521

ATTACHMENT 6

Applicant's estimated annual operating revenue and operating expenses for each of the first five years of operation in the new area covered by this Application are as follows:

Water

Operating Revenue		Operating Expenses		
1st Year	\$131,712	1st Year	\$105,370	
2nd Year	\$412,482	2nd Year	\$329,986	
3rd Year	\$705,306	3rd Year	\$564,245	
4th Year	\$976,668	4th Year	\$781,334	
5th Year	\$1,171,884	5th Year	\$937,507	

Wastewater

Operating Revenue		Operating Expenses		
1st Year	· \$112,896	1st Year	\$90,317	
2nd Year	\$353,556	2nd Year	\$282,845	
3rd Year	\$604,548	3rd Year	\$483,638	
4th Year	\$837,144	4th Year	\$669,715	
5th Year	\$1,004,472	5th Year	\$803,578	

ATTACHMENT 7

WATER USE DATA SHEET

NAME OF COMPANY	
	JOHNSON UTILITIES, L.L.C.
ADEQ Public Water System No.	11-128

MONTH/YEAR (Last 13 Months)	NUMBER OF CUSTOMERS	GALLONS SO	LD (Thousands)	
August, 2004	6,898	35,108		
September, 2004	7,203	44	,239	
October, 2004	7,494	31	31,954	
November, 2004	8,121	71	,123	
December, 2004	8,508	71	,678	
January, 2005	8,894	39	,967	
February, 2005	9,536	37	,068	
March, 2005	10,018	41	,793	
April, 2005	10,588	64	,959	
May, 2005	11,050	72	,365	
June, 2005	11,348	108	3,362	
July, 2005	11,599	116	5,283	
August, 2005	12,048		,479	
STORAGE TANK CAPACITY (GALLONS)	NUMBER OF EACH	ARIZONA DEPT. OF WATER RESOURCES WELL I.D. NUMBER	WELL PRODUCTION (Gallons per Minute)	
1,000,000	1	55-558445	500	
500,000	3	55-559843	417	
100,000	1	55-586189	35	
50,000	1	55-582085	110	
		55-582087	110	
		55-582088	110	
		55-621462	1000	
		55-599026	1000	
		55-201429	1100	
		55-598836	700	
Other Water Sources	in Gailons Per i	/inute	None	
Fire Hydrants on Syst			YES	
Total Water Pumped	Last 13 Months	(Gallons in Thousands)	863,681	

ATTACHMENT 8

DEPARTMENT OF WATER RESOURCES BEFORE THE DIRECTOR

IN THE MATTER OF THE APPLICATION OF JOHNSON UTILITIES FOR A DESIGNATION AS HAVING AN

ASSURED WATER SUPPLY

AWS No. 2003-004
DECISION AND ORDER
No. 26-400665

On December 26, 2001, the Department of Water Resources (Department) received an application from Johnson Utilities, L.L.C. requesting that the Department modify Johnson Utilities' designation of assured water supply pursuant to A.R.S. § 45-576(D) and A.A.C. R12-15-701 et seq. for Johnson Utilities' municipal water delivery system. On January 28, 2003, the Department determined the application to be complete.

After receiving Johnson Utilities' request to modify its designation of assured water supply, and after reviewing relevant information regarding the modification request, including: 1) the hydrologic study of the proposed source of supply on file with the Department, 2) information submitted regarding Johnson Utilities' consistency with the management plan and management goal, 3) information provided by the Arizona Department of Environmental Quality regarding the quality of the proposed source of water, and 4) information regarding Johnson Utilities' financial capability to construct the necessary delivery system, treatment works and storage facilities, the Department finds the following:

- Johnson Utilities is a private water company regulated by the Arizona Corporation
 Commission.
- Johnson Utilities has the legal authority, as granted by the Arizona Corporation
 Commission, to deliver water to its customers located within the boundaries of its
 Certificate of Convenience and Necessity as indicated on maps on file with the
 Department.
- Johnson Utilities has the right to withdraw and deliver groundwater to its customers pursuant to service area right #56-002346.0000.
- 4. Johnson Utilities currently serves 100 percent groundwater to its customers.
- 5. Johnson Utilities' current and committed demand is 1,232 acre-feet per year, as of 2003.

- 6. Johnson Utilities' groundwater supply proven to be physically available is 52,250 acre-feet per year.
- Johnson Utilities' total groundwater supply which was proven to be physically, continuously and legally available is 18,154 acre-feet per year, which is greater than Johnson Utilities' projected demand for the calendar year 2011 of approximately 5,633 acre-feet per year.
- 8. Historic hydrologic information demonstrates that groundwater levels in the service area currently range from approximately 300 to 700 feet with a minimal regional decline.
- 9. After one hundred years of pumping at 5,633 acre-feet per year, the depth-to-water inside Johnson Utilities' service area is expected to range from 400 to 550 feet below land surface and not expected to exceed 1,000 feet below land surface.
- Johnson Utilities is regulated as a large provider under the Department's Third Management Plan for the Phoenix Active Management Area. Johnson Utilities is in compliance with the Third Management Plan requirements as of the date of this decision and order.
- 11. The groundwater supply that Johnson Utilities intends to provide its customers currently meets all federal and state water quality standards, based on compliance information provided by the Arizona Department of Environmental Quality.
- 12. On June 9, 2000 Johnson Utilities became a member service area of the Central Arizona Groundwater Replenishment District ("CAGRD").
- 13. The June 9, 2000 replenishment agreement between Johnson Utilities and the CAGRD limits the replenishment obligation of the CAGRD to 5,967 acre-feet per year, which is more than Johnson Utilities projected 2011 demand of 5,633 acre-feet per year.
- 14. On February 24, 1995, the Director designated that the CAGRD Plan of Operation was consistent with achieving the management goal of the Phoenix Active Management Area.
- 15. As of the date of this decision and order, the CAGRD is in compliance with its groundwater replenishment obligation for the Phoenix Active Management Area.
- In accordance with Arizona Corporation Commission Rules and Regulations, Johnson
 Utilities finances extension of its distribution system through line extension agreements

with owners of new developments. Any owner of a new subdivision served by Johnson Utilities must prove financial capability to construct the necessary water infrastructure to the appropriate platting entity and the Arizona Department of Real Estate pursuant to Titles 9, 11, and 32 of the Arizona Revised Statutes.

Having reviewed the Findings of Fact, the Department makes the following

Conclusions of Law:

- 1. The annual volume of water was found to be physically, continuously and legally available to Johnson Utilities for a minimum of 100 years as prescribed in A.A.C. R12-15-703, and exceeds Johnson Utilities' projected demand of 5,633 acre-feet for the year 2011.
- 2. The water supply served by Johnson Utilities currently meets the water quality requirements specified in A.A.C. P12-15-704.
- 3. Pursuant to A.R.S. § 45-576.01(B), 5,967 acre-feet of Johnson Utilities projected use of groundwater, as a member service area of the CAGRD, is consistent with achieving the management goal of the Phoenix Active Management Area.
- 4. In accordance with A.A.C. R12-15-706, Johnson Utilities proposed use of water is consistent with the Phoenix Active Management Area Third Management Plan requirements.
- 5. Johnson Utilities satisfies the financial capability criteria prescribed in A.A.C. R12-15-707.
- Johnson Utilities satisfied all the requirements for a designation of an assured water supply.

Having reviewed the Conclusions of Law, the Department hereby issues this Order designating Johnson Utilities as having an assured water supply, subject to the following conditions:

- The Department reserves the right under A.A.C. R12-15-709 (A) to periodically review and modify this designation as conditions warrant.
- Pursuant to A.A.C. R12-15-709, the Department may, at any time, review, modify or revoke this designation if the findings of fact or the conclusions of law upon which the designation are based change or are invalid.

1	3.	The Department's determination that an assured water supply exists for Johnson Utilities
2		is based on its analysis of the groundwater supplies pledged by Johnson Utilities.
3	4.	Pursuant to A.A.C. R12-15-704, Johnson Utilities shall satisfy any state water quality
4.		requirements established for its proposed use after the date of this designation.
5	5.	Johnson Utilities shall annually provide to the Department the following information in the
6		manner prescribed in A.A.C. R12-15-711:
7		a. The estimated future demand of platted, undeveloped lots located in Johnson
8	•	Utilities' service area.
9		b. The projected demand at build-out for customers with which Johnson Utilities has
.	·	entered into a notice of intent to serve agreement in the calendar year.
10		c. A report regarding Johnson Utilities' compliance with water quality requirements.
11		d. The depth-to-static water level of all wells from which Johnson Utilities withdrew
12		water during the calendar year.
13		e. Any other information requested by the Director to determine whether Johnson
14		Utilities is continuing to meet all the requirements necessary to maintain this
15		designation of assured water supply.
16	ITISH	EREBY ORDERED THAT JOHNSON UTILITIES BE DESIGNATED AS HAVING AN
17		ATER SUPPLY:
18	DATE	this <u>12</u> day of <u>August</u> 2003.
19		Nerbert Burthe
20		Herb R. Guenther
21		Director
22	·	
23		
24		
25		
26	±	
27	÷.	
28		

ATTACHMENT 9



June 23, 2005

Arizona Corporation Commission 1510 W. Adams St. Phoenix, AZ 85007-2605

Dear Commissioner,

As the owner and future developer of the property situated in Pinal County, Arizona named Silverado Ranch, and per the attached legal description, MBC VII, LLC (C/O Montalbano Homes) is requesting that this parcel be incorporated into the service area of Johnson Utilities to provide future water and wastewater services.

We anticipate construction of 1,828 home sites to be located within the 560.5 acre parcel that will require the services requested. We are currently working with Johnson Utilities to design and engineer the lines necessary to bring the services to our property, and we understand there are connections within current Johnson Utilities boundaries approximately 2 miles south of our parcel which will be utilized to extend the lines.

If you have any questions regarding this request or the parcel please contact the following individuals:

Brian Tompsett, P.E.
Johnson International, Inc.
5230 E. Shea Boulevard
Scottsdale, AZ 85254
btompsett@qwest.net
(480) 998-3300

George Cannon

George Cannon, VP Land Development Montalbano Homes 4800 N. Scottsdale Rd., Suite 2200 Scottsdale, AZ 85251 gcannon@mbihomes.net (480) 308-8250

We appreciate your prompt response to this request.

Sincerely,

George Cannon

VP Land Development





Attachment 'A'

Parcel 1

Lots 1, 2, 3, and the South half of the Northeast quarter and the Southeast quarter of the Northwest quarter of Section 3, Township 3 South, Range 9 East of the Gila and Salt River Base and Meridian, Pinal County, Arizona.

Parcel 2

The South half of Section 3, Township 3 South, Range 9 East of the Gila and Salt River Base and Meridian, Pinal County, Arizona.

EXCEPT that portion of the Magma Arizona Railroad Right-Of-Way as described in Book 51 of Deeds, Page 645, records of Pinal County, Arizona and Re-recorded in that Affidavit Of Correction on November 1, 2002 in Fee 2002-059993 of Official Records, Pinal County, Arizona.

ATTACHMENT 10

Skyline View Properties, LLC

7650 South McClintock Drive Suite #103-256

Tempe, AZ 85284 Office: (480) 491-7850

Fax: (480) 718-7533

Michaelc515@aol.com

TO: Daniel Hodges – Johnson Utilities FROM: Michael T. Cohen-Manager

DATE: September 26, 2005

SUBJECT: Skyline View Estates

PAGES (Including Cover): 1

Daniel:

As a representative of Skyline Properties, LLC I am requesting services for Water and Sewer from Johnson Utilities, L.L.C. The legal description for the requested site is as follows;

Parcel Number 210-34-00202

Section: 03

Township: 03S

Range: 09E

Number of lots approximately: Approx 250-280

Project Name: Sky Line View Estates

If you require any additional information, my contact information is above.

Best Regards,

Michael T. Cohen

Michael T. Cohen

ATTACHMENT 11



Preliminary Engineering Report

Si dollanich R cary Alizona

Project No. 04-028. J

April 2005 Revised May 2005

2150-1 S. Country. Club Dr., Ste 22 Mesa; AZ: 95210 o: 480,593,2250 f: 480,503,2258

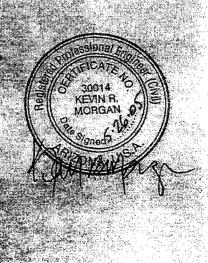


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	TABLES & FIGURES	

APPENDIX

APPENDIX A	DRAINAGE
	FLOOD INSURANCE RATE MAP (FIRM)
	WEIGHTED RUNOFF COEFFICIENTS
	RETENTION CALCULATIONS
Ÿ	NOAA ATLAS 14 PRECIPITATION DATA

VICINITY MAP

RETENTION SUMMARY

APPENDIX B	SEWER ONSITE SEWER FLOW CALCULATIONS
APPENDIX C	WATER

PRESSURE MAPS EPANET 2.0 RESULTS

EXHIBITS

1. PRELIMINARY DRAINAGE EXHIBIT
2. SEWER EXHIBIT
3. WATER EXHIBIT



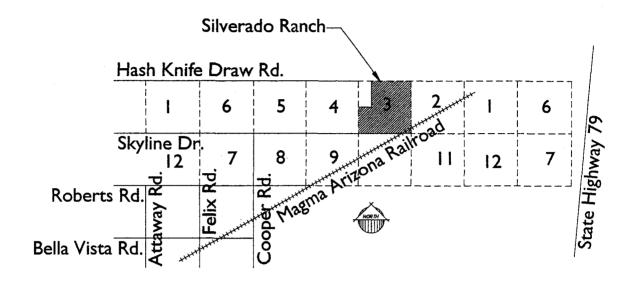
I. INTRODUCTION

Silverado Ranch consists of a proposed 560 acre single-family subdivision, an 18 acre school site, and a 3 acre commercial parcel. There are 1800± single-family residential lots in this subdivision. This project is to be developed in three phases. Silverado Ranch is located in a portion of section three of Township 3 South, Range 9 East of the Gila and Salt River Meridian in Pinal County, Arizona. See the vicinity map on the following page.

This preliminary engineering report will evaluate both offsite drainage influences and onsite drainage and stormwater retention associated with Phase I, as well as provide water and sewer service analysis as part of the proposed improvements associated with all three phases in Silverado Ranch. For the purpose of the sewer and water report, the project has been divided into development areas A-L which appear on exhibits 2 and 3. Design parameters from Pinal County, Johnson Utilities Company, Pinal County Flood Control District, Arizona Water Company, and Arizona Department of Environmental Quality (ADEQ) will be applied to this proposed project to ensure adherence to regulations. A more detailed and final analysis of drainage, water, and sewer will be provided during the final engineering stage of this project.

VICINITY MAP

(NTS)



II. SITE DRAINAGE CHARACTERISTICS AND HYDROLOGY

Silverado Ranch is bounded by state land on all sides of the project.

The site is currently desert land and has an approximate slope of 0.6% from the northeast to the southwest.

Silverado Ranch lies within zone "C" as depicted on the Flood Insurance Rate Map (Map No. 040077 0325 C, August 15, 1983). A copy of this map is located in Appendix A. Flood zone "C" is classified as "areas of minimal flooding."

Offsite Drainage

A preliminary drainage report completed in July of 2003 by Erie & Associates was used to determine the offsite drainage areas and runoff through Silverado Ranch. Based on that report, flows were calculated through the two washes in phase 1. The northern wash transports a 100-year flow of 750 cfs while the southern carries 191 cfs (See Preliminary Drainage Report — Silverado Ranch by Erie & Associates). That report also details the 100-year water surface elevation of the washes throughout the site. These same surfaces are also shown on the exhibit accompanying this report. The final layout of the site, including finished floor elevations, will be designed to ensure protection from the 100-year storm.

The washes have been determined to be within the jurisdiction of the Corp of Engineers and will be preserved to the limits of jurisdiction except at approved road crossings. It is anticipated that these washes will cross roads in phase I at three different locations. Culverts will be designed at final engineering to convey a minimum flow from the 25-year, 6-hour storm per the Pinal County Department of Public Works. All other offsite flows are carried in their historic courses through washes north of phase I. The preliminary drainage report by Erie & Associates summarizes the flows and proposed crossings for the offsite roadway. The approved plans for the offsite roadway by United Engineering Group were designed for these offsite flows.

Accommodations will be made for the flows generated from within Silverado Ranch, after completion of phase I, but before the other two phases are complete. This will include temporary basins, and temporary ditches being provided along the perimeter of phase I as shown in the drainage exhibit. These temporary basins are sized to retain storm runoff from within the borders of the washes that divert flow through the site. The ditches will be designed to convey flows to their historic locations and away from the finished lots of phase I.

Onsite Drainage

A copy of the preliminary drainage exhibit accompanies this report. This exhibit shows catchment areas, flow directions, inlet locations, and retention basins for phase I of Silverado Ranch. All retention basins will be designed to retain runoff three feet deep with 4:1 side slopes. Retention basins have been adequately sized to retain the 100-year, 1-hour storm event (approximately 2.50 rainfall inches) as described in the

drainage design manual of Maricopa County and as currently required in Pinal County. It is anticipated that Maricopa and Pinal County will be adopting NOAA Atlas 14 Point Precipitation Frequency Estimates. The final drainage report may incorporate that new rainfall data, in lieu of 2.5" (see appendix A). Runoff coefficients were calculated in order to determine the total runoff volume produced from this storm by using the Rational Method. Runoff coefficients for the arterial streets were based on a cross-section of the half street right-of-way plus the adjacent landscape tract.

It was assumed that all landscaped areas will be half desert and half turf. Stormwater inlets such as scuppers and catch basins will be designed during final engineering to transport the runoff from the streets to the retention basins. Drywells will be used to facilitate the percolation of runoff into the ground. Drainage from lots will outfall to the streets which will carry water via curbs and gutters to retention basins. Flows that might surpass the 100-year storm will overtop the basin and ultimately outfall to the washes located throughout the site and continue to flow downstream to their historic locations.

The final drainage report will be developed during the construction document preparation of this project. The final grading plan will dictate the hydraulic analysis of the street capacities, inlet sizing, and storm drains. Finished floor elevations will be provided on the final grading plan to assure that all buildings on this site are at least one foot above the water surface produced from the 100-year storm.

The table on the following page is a summary of the retention required versus retention provided for all retention basins as labeled on the preliminary drainage exhibits. Amenity areas have not been shown in these exhibits, they will, however, be included in the final drainage report.

Retention Summary Retention Retention **Net Excess** Volume **Provided** Required BASIN (ac-ft) (ac-ft) (ac-ft) 1,2,&3 2.22 2.09 0.13 1.18 0.89 0.29 4 5 2.22 1.69 0.53 0.73 0.54 0.19 6 7 1.92 1.78 0.14 8 1.15 0.96 0.19 9 2.03 1.37 0.66 10 1.11 1.00 0.12 0.22 П 1.32 1.10 1.12 0.42 12 1.54 2.78 0.70 13 3.47 14 1.12 1.56 2.68 15 0.99 0.83 0.16

See Drainage Exhibit I and Appendix A for detailed calculations.

III. PROPOSED SEWER DESIGN

Sanitary sewer service for Silverado Ranch will be provided by the Johnson Utilities Company. Johnson Utilities Company is responsible for the maintenance of all sanitary sewer facilities, including treatment plants, lift stations and mains which will receive the wastewater from this development. This sewer report addresses the line sizes, depths, capacities, etc. needed to sewer all of Silverado Ranch and the 80-acre portion on its northwest corner.

Johnson Utilities Company will be responsible for extending the sewer mains that will reach the southern boundary of Silverado Ranch. Total sewer flows from the site require that a minimum 15-inch pipe be used to sewer all of Silverado Ranch and the adjacent 80-acre property. Within the development itself 8-inch lines will be used in all locations except on the north-south arterial road running along the center of the project. This line will consist of a 10-inch portion along its northern end and a 12-inch portion tying into it near the limits of Phase 1 (see the attached sewer exhibit for locations).

Flows from developments E, F, and G will follow the natural slope of the land and connect into the 10-inch line in the arterial. Developments C, D, H, and K will flow to the southwest and connect into the 12-inch line in the arterial. All of the other development areas will connect directly into the proposed 15-inch sewer in Skyline Dr. An 8-inch sewer stub will be provided near the southwest corner of the 80-acre development and will be capable of serving that entire property.

Preliminary invert elevations, calculated line capacities, and flows for a portion of the project are provided in Appendix B. Every manhole within the project was not modeled individually; however, critical portions of the project were reviewed to ensure proper sizing and capacity. This was done by estimating the total population upstream from a given node and utilizing the design criteria from Johnson Utilities to approximate the amount of sewer flow that would be generated. Based on these calculations, and the topography of the site, the critical inverts shown should provide adequate depth for all of Silverado Ranch. Because the street layout of the 80-acre development is unknown, a reasonable estimate of a sewer line in that development was assumed and a conservative depth at the outlet of that site into the Silverado Ranch subdivision was designed. Verification of adequate capacities on downstream lines and the expected completion dates of any required increases in treatment capacity shall be completed by Johnson Utilities Company.

Criteria for Calculation of Flows

Flows were calculated using design criteria from Johnson Utility Company as follows:

- 90 GPCD for residential areas
- 2.6 persons/DU for all Family Community Residences
- I,000 GPAD for all commercial and school areas
- 3.0 Peaking Factor for all commercial and school areas.

Residential peaking factors were based on tributary populations along the north-south arterial sewer line. Peaking factors in small areas where line size was not in question was conservatively estimated at 2.50.

IV. PROPOSED WATER DESIGN

Water service for Silverado Ranch will be provided by Johnson Utilities Company. This project will need to obtain a 100 year assured water supply certification, as issued by the Arizona Department of Environmental Quality. Johnson Utilities Company operates and maintains all water supplies, wells, and pumping facilities which will serve the supply lines to this site. These improvements will require the extension and/or installation of water mains adjacent to and within each parcel.

The water exhibits delineate the new lines required to serve the development. The layout of the water system is looped to provide adequate pressures throughout the system. Johnson Utilities will provide a 12-inch waterline along Skyline Dr. A 12-inch water line in the arterial will connect to the line in Skyline Dr. and continue northward. An eight-inch line will loop through the collectors and back through the local street running through development areas C and H. Eight inch lines are also proposed at dead end lines greater than 30 feet and at lines where intersecting waterlines are greater than 1200 feet. Six inch waterlines will be used on all other local streets as shown in the water exhibit.

The project will be served from existing lines at Bella Vista Rd. and Cooper Rd. ADEQ requires that all water lines have a minimum of three feet of cover over the pipe for lines under 12 inches, and four feet of cover for all lines 12 inches or larger. All water lines must have at least six feet of horizontal and two feet of vertical separation from sever lines and other appurtenances, without additional protection. Maximum allowable fire hydrant spacing is 500 feet.

A tank and pumps will be constructed at a well site on the southeastern edge of the property. This system will help maintain pressures within the site as well as provide necessary storage.

The entire site was modeled using EPANet 2.0 to ensure proper pressures. All critical lines were analyzed, and most of the smaller lines were modeled and found to meet the proper standards, including fire flow demands. It was estimated that the pipes feeding the development would provide 70 psi of pressure (from the tank system and from the 12-inch pipe coming from the west). See Appendix C for overall results.

Criteria for Calculation of Flows

Flows were calculated using design criteria from Johnson Utility Company as follows:

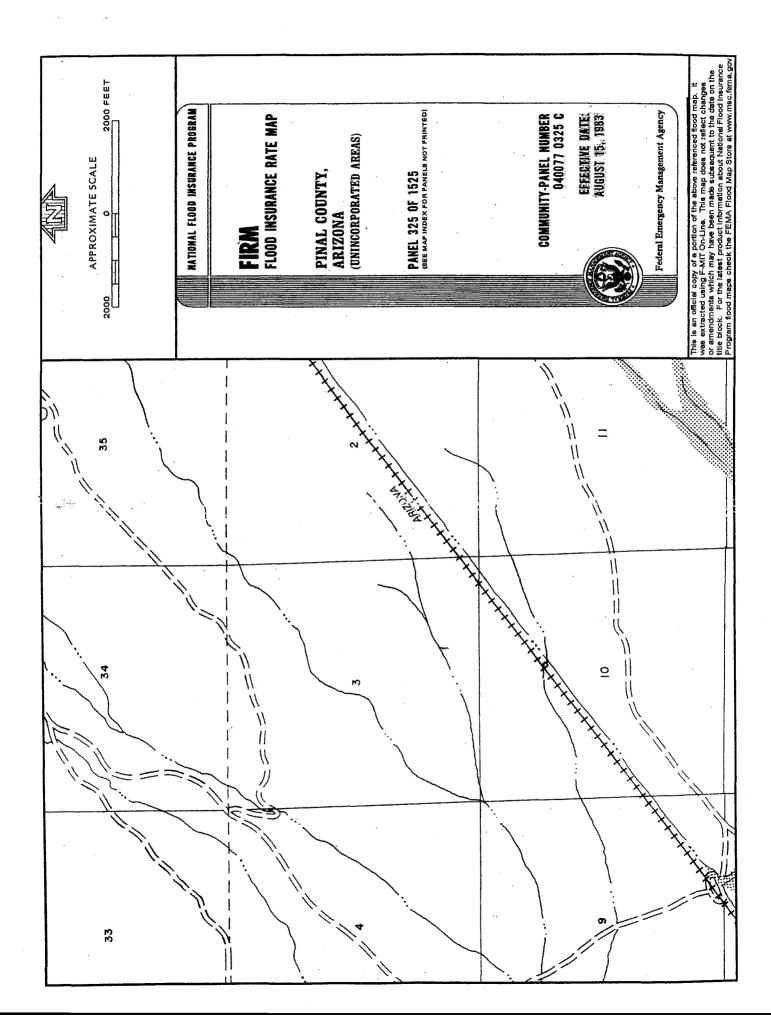
- 100 GPCD for residential dwellings
- 2.6 persons/DU for all Family Community Residences
- 1,500 GPAD for all commercial, school, and park areas
- Minimum pressure of 20 psi and maximum of 80 psi
- Fire flow demand is 1,000 GPM for 2 hours

V. REFERENCES

- Johnson Utilities Company, November 2004
 "Design Guide and Standard Details" Prepared by Specific Engineering, LLC.
- Flood Control District of Maricopa County, 1995
 Drainage Design Manual for Maricopa County, AZ. Volume I, Hydrology
- National Oceanic and Atmospheric Administration, 2003, http://hdsc.nws.noaa.gov NOAA Atlas 14, Volume 1, Version 3
- Arizona Administrative Code, R18-9-E301.4.01 "General Permit: Sewage Collection Systems." (http://www.azsos.gov/public_services/Title_18/18-09.htm)
- Preliminary Drainage Report Silverado Ranch, July 23, 2003
 Prepared for United Engineering Group for submittal to Pinal County
 Department of Public Works by Erie & Associates, Inc.

APPENDIX A DRAINAGE

- FLOOD INSURANCE RATE MAP (FIRM)
- WEIGHTED RUNOFF COEFFICIENTS
- RETENTION CALCULATIONS
- NOAA ATLAS 14 PRECIPITATION DATA



Silverado Ranch

Single Family Development (SFD) Rational Method Weighted "C"

Lot Dimensions

Lot type 45x110 Lot Area+Half Street = 6075 45 x 110

Material	С	Area (sf)	Area Wt	Cw
Roof	0.94	1980.0	0.33	0.31
Concrete	0.94	270.0	0.04	0.04
Asphalt	0.94	720.0	0.12	0.11
Desert	0.69	1552.5	0.26	0.18
Turf	0.13	1552.5	0.26	0.03
	Total	6075.0		0.67

Lot Dimensions

Lot type 55x115 Lot Area+Half Street = 7700 55 x 115

Material	С	Area (sf)	Area Wt	Cw
Roof	0.94	2340.3	0.30	0.29
Concrete	0.94	330.0	0.04	0.04
Asphalt	0.94	880.0	0.11	0.11
Desert	0.69	2074.9	0.27	0.19
Turf	0.13	2074.9	0.27	0.04
	Total	7700.0		0.65

Lot Dimensions

Lot type 65x129 Lot Area+Half Street = 9425 65 x 120

Materia!	С	Area (sf)	Area Wt	Cw
Roof	0.94	2574.0	0.27	0.26
Concrete	0.94	390.0	0.04	0.04
Asphalt	0.94	1040.0	0.11	0.10
Desert	0.69	2710.5	0.29	0.20
Turf	0.13	2710.5	0.29	0.04
	Total	9425.0		0.64

Silverado Ranch

Street
Rational Method Weighted "C"

Arterial Road		Dist to RW	55	ft
Material	С	Width	Width Wt	Cw
Asphalt	0.94	32	0.58	0.55
Concrete	0.94	8	0.15	0.14
Turf	0.13	15	0.27	0.04
		Totals:		0.72

Undeveloped Desert Rational Method Weighted "C"

C = 0.38

This Evalue is based on a 100-year storm per the MCFCD Hydrology Manual page 3-5, Table 3.2.

Silverado Ranch RETENTION AREAS

D_i_fi

Rainfall 2.5 inches

	0.208	feet							
Drainage Area A					Drainage Area B				
Retention Required					Retention Required				
Total Area =	692,690	ft ²			Total Area =	303,681	ft ^z		
Material	€w	Area	Runoff		Material	£₩	Area	Runoff	
SFD (45x110)	0.67	627,656	87,494		SFD (45×110)	0.67	212,066	29,562	
Open space	0.25	65,034	3,387		Arterial (Half-Street)	0.72	44252	6,629	
					Open space	0.25	47,363	2,467	
		Total Runoff:	90,881	ft ³			Total Runoff:	38,658	Ƴ
Retention Provided b	<u>y Basins I</u>	.2.43			Retention Provided by	Basin 4			
Depth	Area	Avg Acea	Yokume		Depth	Area	Avg Area	<u>Yolume</u>	
HW	39,513				HW	20,519			
TOE	24,968	32,241	96,722		TOE	13,796	17,157	51,471	
	1	Fotal Volume:	96,722	ft³		•	Fotal Volume:	51,471	ft³
		Excess:	5,841	ft³	ļ		Excess:	12,814	ft³
		Deficiency:	0	ft ³	Ì		Deficiency:	0	ft³
		4 11 17 1			SAL WEST S			1. V.	
Orainago Area C					Drainage Area D				
Retention Required					Retention Required				
Total Area =	559,824	ft²			Total Area =	197,424	ft ²		
Material	Cw	Acsa	Runoff		Material	₽w	Area	Runoff	
SFD (45x110)	0.67	511,029	71,237		SFD (45x110)	0.67	150,573	20,990	
Open space	0.25	48,794	2,541		Open space	0.25	46,851	2,440	
		Total Runoff:	73,778	ft. ³			Total Runoff:	23,430	ft³
Retention Provided by	y Basin 5				Retention Provided by	Basin 6			
Death	Area	Avg Area	Youme		Depth	Area	Ave Area	Volume	
HW	36,601				HW	14,164			
TOE	28,007	32,304	96,912		TOE	7,047	10,606	31,817	
						.,		,	
	7	Fotal Volume:	96,912	ft ³		•	Total Volume:	31,817	ft.
		Excess:	23,134		1		Excess:	8,387	H,
		Deficiency:	0	ft ³			Deficiency:	0	₽³
Orainaga Area E		·····		•	Drainage Area F	<u> </u>			
Retention Required					Retention Required				
Total Area =	592,160	ft ¹			Total Area =	332,147			
Material	<u>Cw</u>	Area	Runoff		Material	<u>Cw</u>	Area	Runon	
SFD (45×110)	0.67	284,486	39,657		SFD (55x115)	0.65	292,058	39,815	
SFD (55x115)	0.65	259,645	35,397		Ореп зрасе	0.25	40,088	2,088	
Open space	0.25	48,029	2,50 (
		Total Runoff:	77,555	ft³			Total Runoff:	41,903	ft³
Retention Provided L	y Basin 7				Retention Provided b	y Basin i	3		
Depth HW	Area 32,328	Avg Area	Yolume	!	Depth HW	Area 20,236		Yolume	
TOE	23,453		83,672		TOE	13,089	16,662	49,987	
		Total Volume:	83,672	ft ³			Total Volume:	49,987	ft³
ł		_		e. 3	1		F		2,3

Drainage Area G					Drainage Area H				
Reportion Required					Retention Required				
Total Area =	472,718	ft ²			Total Area =	349,742	fc ²		
Material	Cw	Area	Runoff		Material	Cw	Area	Runeff	
SFD (SSx115)	22.0	416,692	56,806		SFD (55x115)	0.65	299,237	40,794	
Open space	0.25	\$6,026	2,918		Ореп явасе	0.25	50,505	2,630	
		Total Runoff:	£0 774	a)			Total Runoff	43 434	د _م
		i ocai ramon:	37,724					43,424	п
Retention Provided b	y Basin 9				Retention Provided by	y Basin II	•		
Depth HW	Area 35.095	Avg Area	Yolume		Depth HW	Acea 20,642	Avg Area	Yolums	
TOE	23,884	29,490	88,469		TOE	11,648	16,145	48,434	
	1	Total Volume:	88,469	ft³		7	otal Volume:	48.434	ft³
	-	France	28,744	6.1	}		Exces:		ft ³
		Deficiency:	0	R ³			Deficiency:		ft ³
	: <u>-</u>		عنيد	عرق			Joseph J.		
Designation of According					Designation Co.				
Prainage Area I					Drainago Area K				
Retention Required					Retention Required				
Total Area =	374,419	ft²			Total Area =	383,094			
Material	Cw	Area	Runoff		Material	Cw.	Acce	Runoff	
SFD (55x115)	0.65	336,296	45,846		SFD (55x115)	0,65	343,034	46,765	
Open space	0.25	38,122	1,986		Open space	0.25	40,060	2,086	
		Total Runoff:	47,832	ft,			Total Runoff:	48,851	ft ³
Retention Provided by					Retention Provided by			•	
Depth	Area		Yokme		Depth	Arca	Avz Area	V.1.	
Neber 15	23,197	AV.ACS	youme		HW	26.512	AVI AITH	YORANG	
TOE	15,103	19,150	57,450		TOE	18,160	22 336	67,008	
,02	13,103	17,130	31,120		10-	10,100	22,300	07,000	
	τ	otal Volume:	57,450	ft)		7	otal Volume:	67,008	ft ³
		Excess.	9,618	R ³	•	•	CXCOOL		ft³
		Deficiency:	0	nt.	ę Í		Deliciency:	0	8.
- Consultation of the cons		- Contractor		,-	<u>i</u>		Description.		
Prainage Area L								عسنس	
					Drainage Area M				
Retention Required					Drainage Area M Retaution Required				
Retention Required Total Area =	944,395	ft ²			İ	413,345	ft ³		
	944,395 <u>Cw</u>	ft ²	Runoff		Retention Required	413,345 Cwr	€² Area	Runoff	
Total Area =			Runoff 100,263		Retention Required Total Area =			Runoff 44,733	
Total Area =	Cw	Area			Retantion Required Total Area = Material	Ωw	Area		
Total Area = <u>Haterial</u> SFD (45x120) Open space	<u>⊆w</u> 0.64	Area 757,705	100,263 3,854 7,309		Retention Required Total Area = Material SFD (65x120)	93±0 0.64	Area 338,056	44,733	
Total Area = Material SFD (45x120)	0.64 0.25	Area 757,705 74,002	100,263 3,854		Retention Required Total Area = Material SFD (65x120)	93±0 0.64	Area 338,056	44,733	
Total Area = Material SFD (45x120) Open space Arterial (Half-Street)	0.64 0.25 0.72 0.72	Area 757,705 74,002 48,789	100,263 3,854 7,309 9,573	ft ³	Retention Required Total Area = Material SFD (65x120)	0.64 0.25	Area 338,056	44,733 3,921	ft. ³
Total Area = <u>Haterial</u> SFD (65x120) Open space Arterial (Half-Street) Arterial (Half-Street)	0.64 0.25 0.72 0.72	757,705 74,002 48,789 63,900 Total Runoff:	100,263 3,854 7,309 9,573	ft ³	Retention Required Total Area = Material SFD (65x120)	0.64 0.25	Arna 338,056 75,290 Total Runoff:	44,733 3,921	ft. ³
Total Area = taterial SFD (65x120) Open space Arzarial (Half-Street) Arterial (Half-Street) Retention Provided b	0.64 0.25 0.72 0.72 0.72	757,705 74,002 48,789 63,900 Total Runoff:	100,263 3,854 7,309 9,573 120,999		Retention Required Total Area = Historial SFD (65x120) Open space Retention Provided by	0.64 0.25 y Basin 1:	Arna 338,056 75,290 Total Runoff:	44,733 3,921 48,854	ft. ³
Total Area = <u>Material</u> SFD (65x120) Open space Arterial (Half-Street) Arterial (Half-Street) Retention Provided b	0.64 0.25 0.72 0.72 v Basin 13 Area 55,909	Area 757,705 74,002 48,789 63,900 Total Runoff:	100,263 3,854 7,309 9,573 120,999		Retention Required Total Area = Material SFD (65x120) Open space Retention Provided by Repth HW	0.64 0.25 y Basin 1: Area 45,416	Area 338,056 75,290 Total Runoff:	44,733 3,921 48,854 Yohane	ft. ³
Total Area = taterial SFD (65x120) Open space Arzarial (Half-Street) Arterial (Half-Street) Retention Provided b	0.64 0.25 0.72 0.72 0.72	Area 757,705 74,002 48,789 63,900 Total Runoff:	100,263 3,854 7,309 9,573 120,999		Retention Required Total Area = Historial SFD (65x120) Open space Retention Provided by	0.64 0.25 y Basin 1:	Area 338,056 75,290 Total Runoff:	44,733 3,921 48,854	ft. ³
Total Area = <u>Material</u> SFD (65x120) Open space Arterial (Half-Street) Arterial (Half-Street) Retention Provided b	0.64 0.25 0.72 0.72 0.72 Y Basin 13 Area 55,909 45,001	Area 757,705 74,002 48,789 63,900 Total Runoff:	100,263 3,854 7,309 9,573 120,999 Yokuma		Retention Required Total Area = Material SFD (65x120) Open space Retention Provided by Repth HW	O.64 0.25 y Basin 1: Area 45,416 32,364	Area 338,056 75,290 Total Runoff:	44,733 3,921 48,854 Yohane	
Haterial SFD (65x120) Open space Arterial (Half-Street) Arterial (Half-Street) Retention Provided by Depth HW	0.64 0.25 0.72 0.72 0.72 Y Basin 13 Area 55,909 45,001	Area 757,705 74,002 48,789 63,900 Total Runoff: Arg Area 50,455 Fotal Volume:	100,263 3,854 7,309 9,573 120,999 Yokuma	₽³	Retention Required Total Area = Material SFD (65x120) Open space Retention Provided by Repth HW	O.64 0.25 y Basin 1: Area 45,416 32,364	Aran 338,056 75,290 Total Runoff: 4 Arg Aran 38,890	44,733 3,921 48,854 Yohane	ft ³

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					1				
etention Required					Retention Required				
Total Area ≈	278,846	ft²			Total Area =	97,107	ft ²		
Material	Cw	Area	Runoff		Material	Swe	Area	Runoff	
Arterial (Half-Street)	0.72	127,232	19,061		Arterial	0.72	78,021	11,688	
Arterial (Half-Street)	0.72	94,658	14,181		Open space	0.25	19,085	994	
Open space	0.25	56,956	2,966]				
		Total Runoff:	36,208	ft ³			Total Runoff:	12,682	ft³
letention Provided b	y Basin 15				Retention Provided b	y.Temp.	Basin 2		
					1				
Depth	Area	Avg Area	Yolume		Depth	Acea	Avg Area	Yokume	
Depth HW	Area 17,326	Avg Area	Yolume		Depth HW	Acsa 14,222		Yolume	
		Avg Area 14,382	Yolume 43,146		1			Yokuma 35,157	
HW	17,326 11,438	_	43,146	ft ³	HW	14,222 9,216		35,157	ft. ³
HW	17,326 11,438	14,382	43,146 43,146	ft³ ft³	HW	14,222 9,216	i i ,719 Total Volume:	35,157	
HW	17,326 11,438	14,382 otal Volume:	43,146 43,146		HW	14,222 9,216	i i ,719 Total Volume:	35,157 35,157	
HW	17,326 11,438 T	14,382 otal Volume: Excess: Deficiency:	43,146 43,146 6,938	ft³	HW	14,222 9,216	i i ,719 Total Volume: Excess:	35,157 35,157 22,475	ft³
HW	17,326 11,438 T	14,382 otal Volume: Excess: Deficiency:	43,146 43,146 6,938	ft ³ ft ³	HW	14,222 9,216	i i ,719 Total Volume: Excess:	35,157 35,157 22,475	1
HW	17,326 11,438 T	14,382 otal Volume: Excess:	43,146 43,146 6,938	ft ³ ft ³	HW	14,222 9,216	i i ,719 Total Volume: Excess:	35,157 35,157 22,475	ft ³

Total Area = 4,461,704 ft²

Ow Area Runoff 0.38 4,461,704 353,218

Total Runoff: 353,218 ft³

Arna 152,635 109,094 Depth HW TOE 130,865 392,594

Total Voluma: 392,594 ft³
Excess: 39,375 ft³
Deficiency: 0 ft³



POINT PRECIPITATION FREQUENCY ESTIMATES FROM NOAA ATLAS 14



Arizona 33.112 N 111.4 W 1624 feet

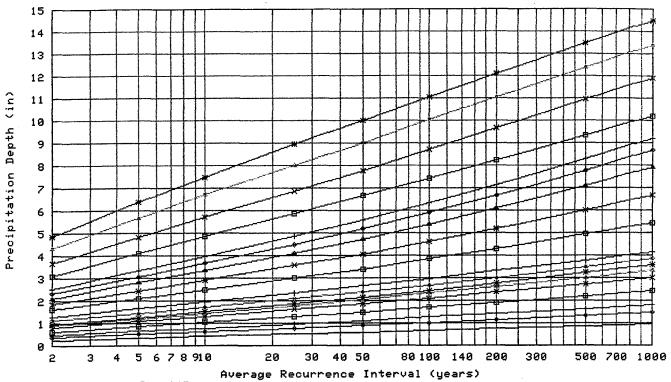
from "Precipitation-Frequency Atlas of the United States" NOAA Atlas 14, Volume 1, Version 3 G.M. Bonnin, D. Todd, B. Lin, T. Parzybok, M.Yekta, and D. Riley NOAA, National Weather Service, Silver Spring, Maryland, 2003

Extracted:	Thu	Sep	29	2005

						L				CHANGE LANGE	(U) (i) (#)		14					Diorest
Precipitation Frequency Estimates (inches)																		
ARI* (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
2	0.25	0.38	0.47	0.64	0.79	0.90	0.95	1.13	1.30	1.61	1.86	2.11	2.32	2.52	3.12	3.66	4.33	4.87
5	0.34	0.52	0.65	0.87	1.08	1.21	1.26	1.45	1.66	2.08	2.44	2.79	3.05	3.32	4.10	4.81	5.69	6.39
10	0.41	0.63	0.78	1.05	1.30	1.44	1.50	1.71	1.94	2.46	2.90	3.33	3.65	3.96	4.86	5.69	6.69	7.50
25	0.51	0.78	0.97	1.30	1.61	1.78	1.85	2.08	2.33	2.99	3.55	4.10	4.49	4.86	5.87	6.87	8.02	8.93
50	0.59	0.90	1.11	1.50	1.85	2.04	2.13	2.38	2.65	3.40	4.07	4.72	5.18	5.58	6.64	7.79	9.02	10.00
100	0.67	1.02	1.26	1.70	2.11	2.32	2.43	2.69	2.97	3.85	4.62	5.38	5.90	6.35	7.44	8.72	10.03	11.07
200	0.75	1.15	1.42	1.92	2.37	2.61	2.75	3.02	3.31	4.30	5.20	6.08	6.67	7.16	8.25	9.67	11.04	12.12
500	0.87	1.32	1.64	2.21	2.73	3.00	3.22	3.48	3.78	4.93	6.00	7.08	7.77	8.29	9.34	10.94	12.37	13.48
1000	0.96	1.46	1.81	2.44	3.02	3.32	3.59	3.85	4.16	5.44	6.65	7.88	8.65	9.21	10.17	11.92	13.38	14.50

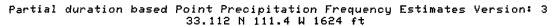
^{*} These precipitation frequency estimates are based on a <u>partial duration series.</u> **ARI** is the Average Recurrence Interval. Please refer to the <u>documentation</u> for more information. NOTE: Formatting forces estimates near zero to appear as zero.

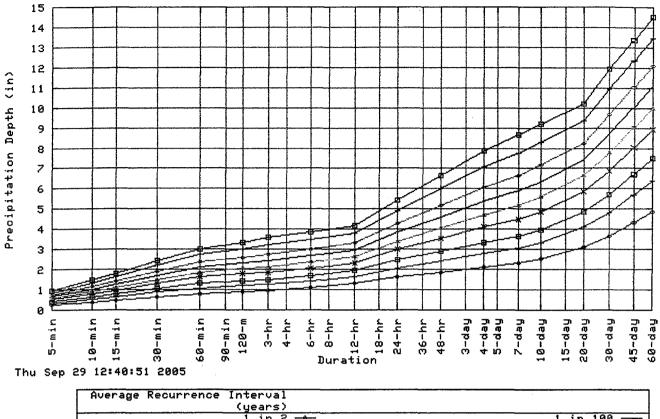
Partial duration based Point Precipitation Frequency Estimates Version: 3 33.112 N 111.4 W 1624 ft



Thu Sep 29 12:40:51 2005

	Duration			
	5-min	120-m	48-hr - *-	30-day →←
•	10-min	3-hr -*-	4-day 	45-day
1 19,944	15-min →-	5-hr	7-day —•	60-day -*-
	30-min	:2-hr -+-	10-day →	· ·
	60-min -×-	24-hr -0	20-day 	





Average	Recurrence	Interval (years)	
		1 in 2 →	1 in 100 —
		1 in 5 	1 in 200 →
		i in 19 -e-	1 in 500 -+
		1 to 25 →	1 in 1000
		1 in 50	

Confidence Limits -

						pper recip								al				
ARI** (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
2	0.30	0.46	0.57	0.77	0.95	1.07	1.14	1.33	1.49	1.77	2.05	2.31	2.54	2.76	3.40	3.97	4.72	5.31
5	0.41	0.63	0.78	1.05	1.30	1.44	1.51	1.71	1.89	2.29	2.68	3.06	3.35	3.64	4.48	5.21	6.19	6.96
10	0.49	0.75	0.93	1.25	1.55	1.72	1.80	2.00	2.21	2.69	3.18	3.64	4.01	4.34	5.30	6.16	7.29	8.15
25	0.61	0.93	1.15	1.55	1.92	2.10	2.20	2.42	2.65	3.26	3.88	4.48	4.92	5.32	6.40	7.44	8.71	9.70
50	0.70	1.06	1.32	1.78	2.20	2.41	2.53	2.76	2.99	3.71	4.44	5.16	5.68	6.11	7.25	8.43	9.81	10.86
100	0.79	1.21	1.50	2.02	2.50	2.74	2.89	3.13	3.37	4.19	5.05	5.89	6.47	6.96	8.12	9.44	10.92	12.04
200	0.90	1.36	1.69	2.27	2.81	3.08	3.27	3.52	3.76	4.69	5.70	6.66	7.33	7.86	9.02	10.50	12.03	13.20
500	1.03	1.57	1.95	2.63	3.25	3.56	3.84	4.06	4.32	5.40	6.60	7.77	8.56	9.12	10.25	11.93	13.52	14.72
1000	1.15	1.74	2.16	2.91	3.60	3.94	4.30	4.50	4.78	5.96	7.34	8.69	9.56	10.16	11.20	13.04	14.67	15.89

^{*} The upper bound of the confidence interval at 90% confidence level is the value which 5% of the simulated quantile values for a given frequency are greater than.

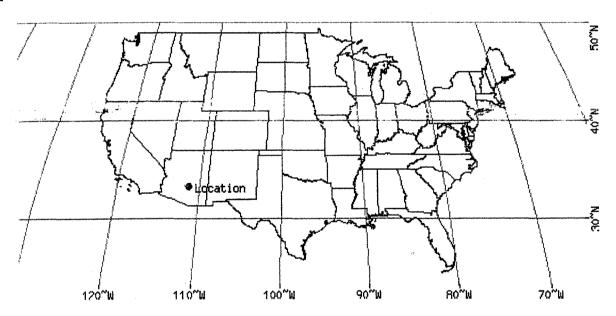
^{**} These precipitation frequency estimates are based on a partial duration series. ARI is the Average Recurrence Interval.

Please refer to the documentation for more information. NOTE: Formatting prevents estimates near zero to appear as zero.

		Annual Designation							he 90° Juenc									
ARI** (years)	5 min	10 min	15 min	30 min	60 min	120 min	3 hr	6 hr	12 hr	24 hr	48 hr	4 day	7 day	10 day	20 day	30 day	45 day	60 day
2	0.21	0.33	0.40	0.54	0.67	0.77	0.81	0.98	1.15	1.47	1.69	1.94	2.12	2.31	2.85	3.37	3.97	4.48
5	0.29	0.44	0.55	0.73	0.91	1.02	1.06	1.26	1.46	1.90	2.21	2.55	2.79	3.03	3.75	4.43	5.21	5.87
10	0.35	0.53	0.65	0.88	1.09	1.21	1.26	1.47	1.70	2.23	2.63	3.03	3.33	3.61	4.42	5.22	6.12	6.87
25	0.42	0.65	0.80	1.08	1.33	1.47	1.53	1.77	2.02	2.69	3.20	3.71	4.06	4.40	5.32	6.26	7.31	8.16
50	0.48	0.73	0.91	1.22	1.51	1.67	1.74	1.99	2.27	3.04	3.64	4.25	4.66	5.03	6.01	7.05	8.19	9.10
100	0.54	0.82	1.01	1.36	1.69	1.86	1.96	2.21	2.51	3.40	4.09	4.81	5.26	5.68	6.70	7.86	9.06	10.02
200	0.59	0.90	1.12	1.51	1.87	2.06	2.17	2.44	2.75	3.76	4.56	5.39	5.91	6.35	7.38	8.66	9.91	10.91
500	0.67	1.01	1.26	1.70	2.10	2.31	2.46	2.73	3.07	4.25	5.20	6.19	6.79	7.26	8.27	9.70	11.01	12.05
1000	0.72	1.10	1.36	1.83	2.26	2.50	2.67	2.95	3.31	4.62	5.69	6.82	7.48	7.99	8.96	10.49	11.83	12.89

^{*} The lower bound of the confidence interval at 90% confidence level is the value which 5% of the simulated quantile values for a given frequency are less than.

Maps -



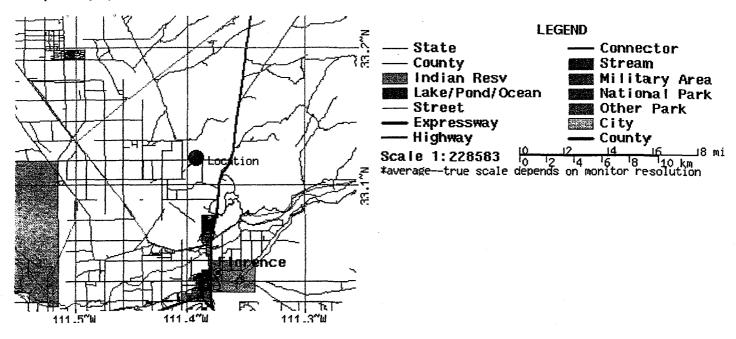
These maps were produced using a direct map request from the U.S. Census Bureau Mapping and Cartographic Resources

Tiger Map Server.

Please read <u>disclaimer</u> for more information.

^{**} These precipitation frequency estimates are based on a partial duration maxima series. ARI is the Average Recurrence Interval.

Please refer to the <u>documentation</u> for more information. NOTE: Formatting prevents estimates near zero to appear as zero.



Other Maps/Photographs -

<u>View USGS digital orthophoto quadrangle (DOQ)</u> covering this location from TerraServer; **USGS Aerial Photograph** may also be available

from this site. A DOQ is a computer-generated image of an aerial photograph in which image displacement caused by terrain relief and camera tilts has been removed. It combines the image characteristics of a photograph with the geometric qualities of a map. Visit the USGS for more information.

Watershed/Stream Flow Information -

Find the Watershed for this location using the U.S. Environmental Protection Agency's site.

Climate Data Sources -

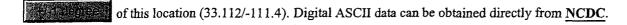
Precipitation frequency results are based on data from a variety of sources, but largely NCDC. The following links provide general information

about observing sites in the area, regardless of if their data was used in this study. For detailed information about the stations used in this study,

please refer to our documentation.

Using the National Climatic Data Center's (NCDC) station search engine, locate other climate stations within:





Find <u>Natural Resources Conservation Service (NRCS)</u> SNOTEL (SNOwpack TELemetry) stations by visiting the Western Regional Climate Center's state-specific SNOTEL station maps.

Hydrometeorological Design Studies Center DOC/NOAA/National Weather Service 1325 East-West Highway Silver Spring, MD 20910 Precipitation Frequency Data Server

(301) 713-1669

Questions?: HDSC.Questions@noaa.gov

Disclaimer

APPENDIX B

SEWER

ONSITE SEWER FLOW CALCULATIONS

90 galvapitalday 2.6 2.50 (Average used in all areas except along collectior road where it was based on the tributary population)

Sewer spreadsheet

Manning's 'n':	ë									İ						
Up MH	Down MH	Pipe length (ft)	Pipe dia. (In)	Lots	Population	Peaking Factor	Cum. Flow (MGD)	Cum. Flow Cum. Flow (MGD) (cfs)	Line cap. (cfs)	av. elev	Down Inv. elev	Pipe stope X	rim elev	Down MH rim elev	depth (ft)	Down MH depth (ft)
06# HW	Offs.#3	220.96	2	1482	3853	202	0.7005	1.084	1.553	1646.31	1645.89	61.0	1663.50	1662.00	17.19	<u> </u>
MH #91	₩H#	337.92	2	1482	3853	202	0.7005	1.084	1.553	1646.55	1646.31	0.19		1663.50		17.19
MH #92	16# HW	275.74	2	<u>=</u>	3078	2.10	0.5818	0.900	1.553	1647.57	1647.05	0.19				
MH #93	MH #92	137.28	2	<u>=</u>	3078	2.10	0.5818	0.900	1.553	1647.94	1647.67	61.0				
MH #94	€6# HW	115.25	7	<u>=</u>	3078	2.10	0.5818	0.900	1.553	1648.25	1648.04	0.19	1664.30		16.05	
MH #95	MH #94	62.81	13	810	2106	2.20	0.4170	0.645	1,553	1648.37	1648.25	61.0		1664.30		
96# HW	¥ H₩	206.78	13	810	2106	270	0.4170	0.645	1,553	1648.87	1648.47	0.19				
MH #97	96# IIV	201.2	7	910	2106	2.20	0.4170	0.645	1,553	1649.35	1648.97	61.0				
MH #98	MH #97	201.2	13	810	2106	2.20	0.4170	0.445	1,553	1649,73	1649.35	0.19				
MH #89	86# TW	440.26	13	010	2106	220	0.4170	0.645	1.553	1650.67	1649.83	9.19				
MH#100	WH #88	46.15	13	910	2106	270	0.4170	0.645	1.553	1650.86	1650.77	9.19				
101# HM	00 # H₩	144.8	13	840	2106	220	0.4170	0.645	1.553	1651.13	1650.86	6.19				
MH #102	MH #10	144.76	13	810	2106	2.20	0.4170	0.645	1.553	1651.51	1651.23	0.19				
MH #103	_	45.07	7	810	2106	2.20	0.4170	0.645	1.553	1651.51	1651,61	6.19	1660.50		8.99	
MH #104		254.64	2	538	1399	2.28	0.2870	0.444	1.073	1652.22	1971591	0.24		1660.50		8.89
MH #105	\$ # I I	65.07	으	538	1399	2.28	0.2870	0.444	1.073	1652.47	1652.32	0.24				
%H#10	MH #105	134.47	2	538	1399	2.28	0.2870	0.444	1.073	1652.80	1652.47	0.24				
MH #107	MH#106	495	<u>e</u>	538	1399	778	0.2870	0.444	1,073	1653 98	1652.80	0.24				
# HW	MH#107	295	2	538	1399	2.28	0.2870	0.44	£70.1	1654.59	1653.98	0.24				
MH #109	MI #108	218.65	2	538	1399	2.28	0.2870	0.444	1.073	1655.27	1654.69	0.24	1664.00		8.78	
Q	MI#109	365	2	335	118	1.41	0.1897	0.294	1.073	1656.0%	1655.22	0.24		1664.00		8.78
= # ₩	21# ¥¥	365	2	335	871	242	0.1897	0.294	1.073	1656.9.	1656.09	0.24				
MH # 12	Ξ # H₩	351.52	9	335	128	2.42	0.1897	0.294	1.073	1657.81	1636.97	0.24	1667.00		9.19	
# # # #	MH #112	215	œ	780	87.	2.50	0.1638	0.253	0.936	06281	1658.01	09'0		1667.00		8.99
MH #114	MH#113	300	*	139	364	2.50	0.0813	0.126	0.936	J661 30	1659.50	09.0				
ZI#IZ	¥:#¥ ₩	207.03	99	121	330	250	0.0743	0.115	0.936	1662 54	1661.30	09.0				
31.₩.T₩	MH#15	54.57	60	120	312	2.50	0.0702	0.109	0.936	1662.85	1662.54	09:0				
MH#17	91#HW	271.2	80	8	307	250	0.0690	0.107	0.936	1664.61	1662.98	0,60				-
MH #118	MH#117	300	80	105	273	250	0.0614	0.095	0.936	1666.43	1664.61	0.60				-
91#HW	# H H	330	•	8	242	2.50	0.0544	0.084	0.936	1668.39	1666.41	0,60				
MH #120	%H# H₩	331.63	•	78	203	2.50	0.0456	0.071	0.936	1670.38	1668.39	0.60				•
MH#121	MH#120	446.54	∞	۶	187	2.50	0.0410	0.063	0.936	1673.04	1670.38	0,60				
MH#122	MH#121	446.54	89	20	130	720	0.0293	0.045	0.936	1675,74	1673.06	0.60				
MH#123		285.92	œ	33	83	2,50	0.0187	0.029	0.936	1677.45	1675.74	09'0				
MH #124	MH #123	373.81	80	77	20	2.50	0.0158	0.024	926	07.679)	1677.45	0.60				
MH #125	MH #124	367.1	∞	15	86	2.50	0.0088	0.014	0.936	1682.00	1679.80	09.0	00'6891		7.00	
MH #72	MH #94	113.56	œ	336	874	2.50	0.1966	0.304	1101	1649.38	1648.58	0.70		1664.30		15.72
MH #73	MH #72	237.11	3	336	874	2.50	99610	0.304	101	1651.0	649.38	0.70				
MH #74	MH #73	68.32	80	336	874	2,50	0.1966	0.304	1.01	1651.62	1651.14	0.70				

										_										_	_				_						_									
																							;	5													13.50			
	12.71								11.68						13.33							9.00		07:01												13.60				12.80
		1668.80								1677.60						1687.00							00077	20.07													1654.80			
	1668.80								1677.60						1687.00							1686.50		2												1654.80				1660.30
0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.33	0,33	0.33	0.33	033	0.33	0.33	Ş		6.23	0,33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	0.33	09.0	09'0	09'0	09'0
1651.72	1654.06	1656.09	01.6591	1660.83	86,138	1662.21	1663.47	1663.79	1665.74	1666.02	1668,04	1668.51	1669.60	1670.50	1670.86	1673.87	1674.29	1674.81	1676.41	1676.80	677.09	1677.38	8		1633.10	634.80	1635.69	1635.93	1636.82	1637.04	1638.04	1639.22	1639.00	1639.26	1640.15	1641.01	<u>55.</u>	1643.70	1646.65	1647.01
1653.13	1456.09	1459.10	EZ/1991	1661 38	1662 !!	1663.17	1663.69	1665.64	1665.52	1667.94	1668.4	0.76991	1670.43	1670.64	1673.67	(4.4√)	1674.61	1676.31	1676.70	1677.09	1677.38	1678.50	97 663		1633.88	1635.59	1635.83	1636.77	1636.94	1637.94	1638.12	1638.9	1639.16	1640.15	16:09:31	1641.20	1643.70	1646.55	16.91	1647.50
110.1	1.0.1	11011	10.1	1101	1.0.1	101	1,0,1	1.0.1	1101	10.1	1.01	1,0.1	101	1,0,1	1.0.1	9.694	0.694	0.694	69.0	0.694	0.694	0.694	70,70		164°C	0.694	0.694	969.0	0.694	0.694	0.694	0.694	0.694	0.694	0.694	769.0	936	936	936	0.936
0.289	0.266	0.245	0.217	0.217	0. <u>180</u>	0.180	0.180	0.14	0. 14	901.0	901.0	0.072	2200	2200	0.035	0.035	0.027	0.023	0.018	0.014	0.009	0.005	ţ		0.407	0.385	0.362	0.317	0.285	277	0.249	0.240	0.226	0.213	0.204	0.189	0.038	0.022	0.004	0.002
0.1866	0.1720	0.1585	0.1404	0.1404	2.1.0	2.0	0. <u>7</u>	0.0930	0.0930	9690'0	9690'0	0.0462	0.D462	0.0462	0.0228	0.0228	0.0176	0.0146	0.0117	0.0088	0.0059	0.0029	0000		6//70	0.2486	0.2340	0.2048	0.1843	0.1755	0.1609	0.1550	0.1463	0.1375	0.1316	0.1223	0.0246	0.0140	0.0023	0.0012
2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	7.50	2.50	5.50	2.50	2.50	2.50	250	2.50	2.50	7.50	2.50	2.50	2.50	2.50	2.50	5	3 :	0 5°	ន	2.50	2.50	2.50	750	2.50	2.50	2.50	2.50	1.50	2.50	2.50	957	250	87
829	764	205	624	624	217	217	517	1 3	-	309	309	205	205	205	<u>.</u>	<u>.</u>	78	53	23	39	%	ū	ġ	5 !	\$2.5	100	96	910	819	780	715	683	. 059	ij	\$85	£	6	62	2	v,
319	28	1/2	240	240	66	<u>&</u>	8	159	129	611	119	62	79	٤.	33	8	æ	27	70	6	<u>e</u>	u,	Ş	Ęį	\$ \$	£ £	8	350	315	300	275	265	250	235	225	509	42	24	~	7
80 60	- 00	40	80	œ	6 0	•	90		80	•	80	20	80	60	80	•	∞	80		89	∞		•		.	• •		• •	80		•	•	•	•	60	80	80	•	8	∞
18.24	290	430	332.66	78.98	104.32	165.21	31.13	264.53	25.58	275.39	51.66	156.75	113.68	51.23	401.16	97.2	57.7	455.5	87.66	86.14	88.02	140.75	į	337.1	234.89	237.81	44.26	239.08	36.83	270.09	25.2	206.38	49.26	270	230	26.57	400.5	175.38	42.7	81.55
4H #74 2	MH #79	MH #83	MH #85 2	1H#126	MH#127	4H#128	MH#129	MH#130 2	MH#131					MH #136	MH#137 4	MH #138	MH #139	MH#140	MH#141	MH#142	MH #143	MH#144 3			MH#22					MH #50 2	MH #5!		MH #60	MH #61	MH #62	MH #63	MI #54	MH #65 4	₹H #86	MH #67
	_			_	_	_	_	_	_		_	_	_			_	_	_		_	_	_					-	-			_	_	-	_	_	_		_	-	
MH #78	MH #83	MH#85	MH #126	MH #127	MH#128	MH #129	MH#130	<u>≅</u> #⊒	MH#132	MH#133	Z# # Z	MH#135	MH#136	MH#137	MH#138	MH#139	MH #140	MH #14	MH#142	MH #143	A # 12	MH #145		77# 111	MH#23	¥ 12	¥ H	MH #49	05# TW	MH#S	MH#52	MH #60	MH #€	MH #62	MH#63	MH #64	MH #65	MH#66	MH#57	MH #68

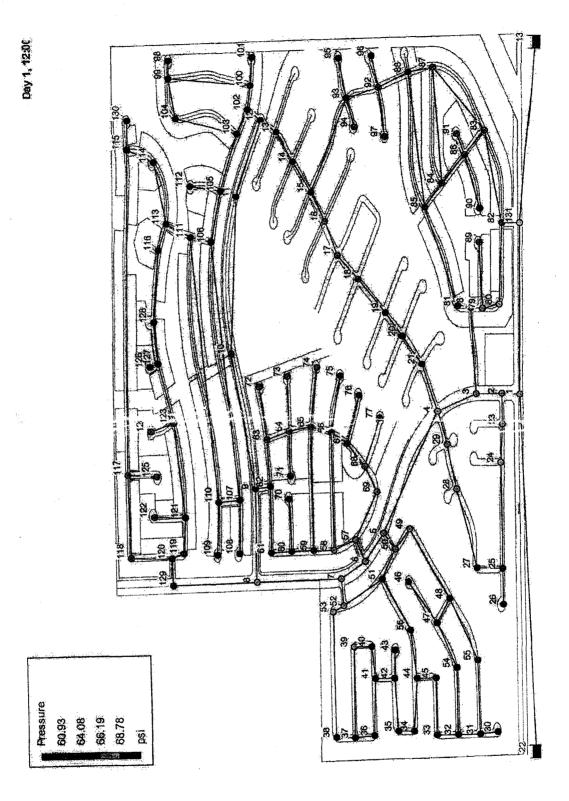
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CARGO ...

APPENDIX C WATER

- PRESSURE MAPS
- EPANET 2.0 RESULTS

Average Day Demand



Γ	Ð	63.27	62.4	62.18	61.2	62.21	62.48	61.96	60.3	57.87	53.48	50.35	48.96	50.28	51.02	53.52	55.05	56.15	57.28	58.52	59.22	60.38	63.2	63.54	65.49	96.39	65.4	63.5	62.12	67.23	67.23	8.99	96.39	65.91	65.47	65.45	65.01	64.58	62.85	63.72	63.72	64.59	64.16	<u>.</u>
101	Pressure nsi	1) Ø	62	9	62	62	61	9	57	53	50	48	20	51	53	55	56	57	58	58	99	Φ	63	65	99	Ø	Ø	62	67	67	Φ	99	65	65	65	65	64	62	63	63	9	9	5
Nod	Head F	9.02	1808.02	1807.51	1806.24	1804.57	1804.2	1803.99	1803.16	1802.55	1800.43	1798.21	1796.99	1798.03	1799.74	1801.52	1802.06	1802.6	1803.2	1804.06	1804.66	1805.36	1807.85	1807.65	1807.14	1807.14	1806.93	1806.55	1806.37	1804.16	1804.16	1804.16	1804.15	1804.1	1804.09	1804.05	1804.05	1804.04	1804.05	1804.05	1804.05	1804.06	1804.06	2
Fire Flo	Demand H	C	3.25	0	0	0	0	0	0	0	9.5	9.5	0	6.14	6.14	6.14	6.14	6.14	5.6	4.15	4.33	3.07	3.07	3.61	2.89	0.0	2.71	2.17	2.71	0.72	3.25	3.25	2.17	1.81	2.53	2.35	3.97	4.15	1.62	0.9	1.81	1.62	1 08	
	ssure	63.25	62.37	62.15	61.14	61.87	62.08	61.51	59.64	57.5	53.99	51.79	50.92	52.03	52.44	54.61	99	56.97	57.95	58.98	59.53	60.53	63.16	63.51	65.44	66.31	65.35	63.44	62.06	66.84	66.84	66.4	65.96	65.5	65.06	65.03	64.59	64.16	62.43	63.3	63.3	64.17	63.74	
Fire Flow at Node 130	Head Pre	1808.98	1807.95	1807.43	1806.09	1803.79	1803.28	1802.96	1801.65	1801.7	1801.61	1801.54	1801.51	1802.08	1803.03	1804.02	1804.24	1804.47	1804.73	1805.11	1805.38	1805.69	1807.77	1807.57	1807.04	1807.04	1806.82	1806.42	1806.23	1803.26	1803.26	1803.25	1803.24	1803.17	1803.14	1803.07	1803.07	1803.06	1803.08	1803.08	1803.08	1803.1	1803.1	
Fire Flo	Demand He	0	3.25	0	0	0	0	0	0	0	9.5	9.5	0	6.14	6.14	6.14	6.14	6.14	5.6	4.15	4.33	3.07	3.07	3.61	2.89	0.9	2.71	2.17	2.71	0.72	3.25	3.25	2.17	1.81	2.53	2.35	3.97	4.15	1.62	6.0	1.81	1.62	1.08	
	ssure	7.	62.4	62.18	61.2	62.2	62.47	61.94	60.28	57.86	53.51	50.41	49.03	50.34	51.07	53.56	55.09	56.18	57.31	58.54	59.23	60.39	63.19	63.54	65.49	66.36	65.4	63.5	62.12	67.22	67.22	82.99	66.35	62.89	65.45	65.44	65	64.57	62.84	63.7	63.7	64.58	64.14	
Fire Flow at Node 98	Head Pre	1809.02	1808.02	1807.51	1806.24	1804.55	1804.17	1803.96	1803.11	1802.53	1800.48	1798.33	1797.16	1798.18	1799.86	1801.6า	1802.14	1802.67	1803.26	1804.1	1804.69	1805.37	1807.84	1807.65	1807.14	1807.14	1806.93	1806.55	1806.37	1804.13	1804.13	1804.13	1804.12	1804.08	1804.06	1804.02	1804.01	1804.01	1804.02	1804.02	1804.CZ	1804.03	1804 03	1
Fire Flo	Demand He	c	3.25	0	0	0	0	0	0	0	9.5	9.5	0	6.14	6.14	6.14	6.14	6.14	5.6	4.15	4.33	3.07	3.07	3.61	2.89	6.0	2.71	2.17	2.71	0.72	3.25	3.25	2.17	1.81	2.53	2.35	3.97	4.15	1.62	0.9	1.81	1.62	1.08)
	Pressure D	67 14	66.71	66.71	66.26	67.95	68.37	67.93	66.63	64.46	60.99	58.83	57.97	58.85	58.87	60.63	61.93	62.79	63.66	64.52	64.96	65.82	67.57	99	70,16	71.02	70.16	68.42	67.12	73.11	73.11	72.68		71.81		71.37		70.51				70.51	70 07	
ADD	ead	1817 05	1817.95	1817.95	1817.91	1817.81	1817.79	1817.78	1817.76	1817.76	1817.76	1817.77	1817.79	1817.81	1817.87	1817.93	1817.92	1817.92	1817.91	1817.91	1817.91	1817.91	1817.94	1817.93	1817.92	1817.92	1817.91	1817.91	1817.91	1817.73	1817.73	1817.73	1817.73	1817.73	1817.72	1817.72	1817.72	1817.73	1817.72	1817.72	1817.72	1817.72	1817 72	
	Demand H	c	3.25	0	0	0	0	0	0	0	9.5	9.5	0	6.14	6.14	6.14	6.14	6.14	5.6	4.15	4.33	3.07	3.07	3.61	2.89	6.0	2.71	2.17	2.71	0.72	3.25	3.25	2.17	1.81	2.53	2.35	3.97	4.15	1.62	6.0	1.81	1.62	1 08	
	Elevation D	1663	1664	1664	1665	1661	1660	1661	1664	1669	1677	1682	1684	1682	1682	1678	1675	1673	1671	1669	1668	1666	1662	1661	1656	1654	1656	1660	1663	1649	1649	1650	1651	1652	1653	1653	1654	1655	1659	1657	1657	1655	1656	
		<u>.</u>	June 1	June 3	June 4	Junc 5	Junc 6	June 7	June 8	June 9	June 10	June 11	June 12	June 13	Junc 14	June 15	June 16		Junc 18	Junc 19	June 20	June 21	June 23	Junc 24	Junc 25	Junc 26	Junc 27	Junc 28	Junc 29	June 30	June 31	June 32	Junc 33	June 34	June 35	June 36	June 37	June 38	Junc 39	Junc 40	Junc 41	Junc 42	June 43	

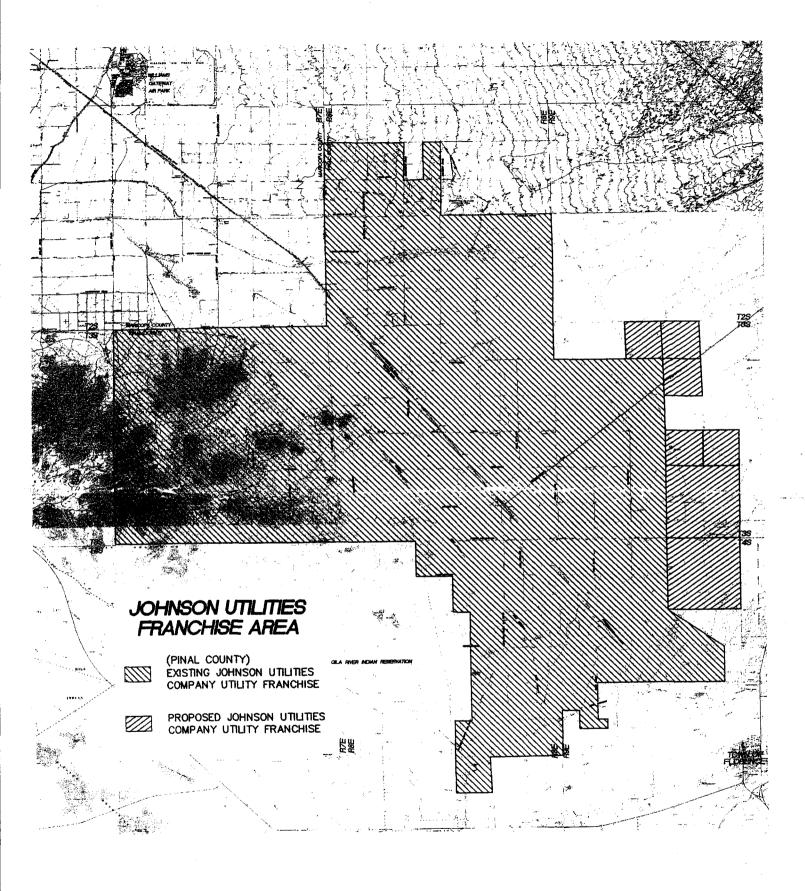
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65.49	7000	05.54	64.64	64.21	62.52	62.53	02.91	02.41	0 1.0	65.5	65.5	64.19	61.39	60.82	59.88	59.82	59.78	58.4	57.16	57.21	57.71	58 63	50.00	20.02	00.42	00.00	58.96	58.51	55.86	56.34	57.71	58.19	59.08	59.99	61.84	62.15	63.22	61.84	62.63	58.5	59.75	60.11	59.13	56.65	56.31	60.85	09	58.27	55.85
1804 14	004:11	1004.17	1804.17	1804.18	1804.28	1804.32	1804.18	1004.04	1804.04	1804.17	1804.17	1804.15	1803.67	1803.36	1803.2	1803.07	1802.96	1802.79	1802.91	1803.04	1803 18	1803.3	1803.36	1003.30	003.44	1803.51	1803.07	1803.04	1802.91	1803.04	1803.18	1803.3	1803.36	1803.44	1810.73	1811.43	1812.9	1810.72	1816.54	1812	1810.9	1810.71	1811.47	1810.74	1809.96	1811.43	1811.47	1811.47	1807.89
τα τ				3.43						1.44				-	2.35									·														3.61	-	3.61	3.61			3.61	3.61	•	•		
65.09	20.00	02.80	64.25	63.82	62.14	62.16	04.51	0.10 0.10	01.55	65.11	65.11	63.8	61	60.43	59.5	59.44	59.4	58.03	56.78	56.83	57.33	58 24	50.27	00.00	00.03	00.48	58.58	58.13	55.48	55.97	57.33	57.81	58.7	59.6	62.02	62.31	63.36	62.02	62.72	58.69	59.96	60.29	59.33	56.88	56.6	61.01	60.2	58.46	56.33
1803 22	1000.24	1803.28	1803.28	1803.29	1803.41	1803.46	1803.26	1803.05	1803.05	1803.26	1803.27	1803.23	1802.77	1802.47	1802.31	1802.19	1802.09	1801.93	1802.04	1802.16	1802.3	1802 42	1802.42	1002.47	1602.55	1802.61	1802.19	1802.16	1802.04	1802.16	1802.3	1802.42	1802.47	1802.55	1811.12	1811.8	1813.23	1811.13	1816.76	1812.44	1811.37	1811.15	1811.93	1811.28	1810.62	1811.8	1811.92	1811.93	1809
ر م		44.	1.99	3.43	2.71	0.0	3.97	1.99	3.97	1.44	2.53	2.17	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	235	235	2.33 7.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	0.72
65.48	9 6	03.33	64.63	64.2	62.51	62.52	62.89	64.67	61.97	65.49	65.49	64.18	61.38	60.81	59.87	59.81	59.77	58.4	57.15	57.2	57.7	58.62	50.02	29.0	00.41	60.87	58.95	58.5	55.85	56.34	57.7	58.18	59.07	59.98	61.85	62.15	63.22	61.85	62.63	58.5	59.76	60.11	59.14	56.66	56.32	60.85	60.01	58.27	55.86
1804 11	1000	1804.15	1804.15	1804.16	1804.25	1804.29	1804.15	1804.01	1804.01	1804.14	1804.14	1804.12	1803.65	1803.34	1803.17	1803.04	1802.94	1802 77	1802 89	1803.01	1803 16	1803.18	1803.2.0	1003.00	1803.41	1803.48	1803.04	1803.03	1802.89	1803.0	1803.16	1803.28	1803.33	1803.41	1810.74	1811.44	1812.91	1810.74	1816.55	1812.02	1810.92	1810.73	1811.49	1810.76	1809.98	1811.44	1811.49	1811.49	1807.93
7	0.	1.44	1.99	3.43	2.71	0.9	3.97	1.99	3.97	1.44	2.53	2.17	2.35	2.35	2.35	2.35	2.35	2.35	2 35	2.35	2.35	2. C	2.33	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	0.72
14.00	0.1.	69.21	70.51	70.08	68.36	68.36	68.79	68.36	67.92	71.38	71.38	70.08	67.49	67.05	66.19	66.19	66.19	64 80	63.50	63.50	62.00	70.10	04.09	65.75	66.62	67.05	65.32	64.89	62.29	62.72	64.02	64.45	65.32	66.19	66.13	66.3	67.12	66.13	65.89	62.62	64.08	64.45	63.35	61.04	60.91	65	64.22	62.49	61.06
1	1817.73	1817.73	1817.73	1817.73	1817.76	1817.77	1817.76	1817.76	1817.76	1817.73	1817.73	1817.74	1817.76	1817.75	1817.75	1817 75	1817 75	1817 75	1017.75	1017.75	1017.13	1017.73	1817.75	1817.75	1817.75	1817.75	1817.75	1817.75	1817.75	1817.75	1817.75	1817.75	1817.75	1817.75	1820.61	1821.02	1821.89	1820.63	1824.07	1821.53	1820.9	1820.74	1821.21	1820.88	1820.57	1821.02	1821.21	1821.21	1819.91
	1.81	1.44	1.99	3.43	2.71	6.0	3.97	1.99	3.97	1.44	2.53	2.17	2.35	2 35	2.35	2 35	2.35	2.00	2.33	2.33 3.35	2.33	2.33	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2.35	2,35	2.35	2.35	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3.61	3,61	3.61	3.61	3.61	
1	1653	1658	1655	1656	1660	1660	1659	1660	1661	1653	1653	1656	1662	1663	1665	1665	1665	000	1000	107	10/1	0/91	1668	1666	1664	1663	1667	1668	1674	1673	1670	1669	1667	1665	1668	1668	1667	1668	1672	1677	1673	1672	1675	1680	1680	1671	1673	1677	1679
	Junc 45	Junc 46	Junc 47	Junc 48	Junc 49	Junc 50	Junc 51	Junc 52	Junc 53	June 54	June 55	June 56	June 57	11100 58	1.00 50	oc ount	June 64	onic or	Junc 62	June 63	Junc 64	Junc 65	Junc 66	Junc 67	Junc 68	Junc 69	Junc 70	June 71	June 72	June 73	time 74	June 75	June 76	lunc 77	func 78	June 79	June 80	Time 81	1 0 0 m	10000	Lunc 84	11100 85	lunc 86	June 87	June 88	June 89	Junc 90	Junc 91	Junc 92

54.91	55.34	54.04	55.41	57.15	41.15	41.58	39.38	38.66	43.15	44.46	42.48	46.88	47.75	53.5	53.94	54.45	53.15	48.12	46.01	49.11	47.78	47.64	49.7	53.81	55.73	57.4	57.58	56.69	55.83	53.4	53.83	54.68	52.11	52.11	50.98	58.85	46.77	64.98	ਰ	0
1805.72	1805.72	1805.72	1807.89	1807.89	1782.97	1782.97	1778.88	1775.21	1787.59	1787.61	1784.04	1790.19	1792.21	1792.48	1792.48	1792.66	1792.66	1793.05	1790.19	1795.33	1796.26	1796.95	1795.7	1798.19	1799.61	1800.48	1800.88	1799.84	1799.84	1798.24	1798.24	1798.19	1797.27	1797.27	1796.66	1802.82	1796.95	1820.97	1800.15	1839.7
0.72	0.72	0.72	0.72	0.72	2.35	2.35	2.35	1002.35	2.35	2.35	2.35	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	0	1199.1	-2555.61
55.59	56.03	54.73	55.89	57.63	47.56	47.99	47.95	48.81	48.01	48.5	48.34	47.04	45.08	50.41	50.84	51.12	49.82	44.38	46.17	42.71	35.72	31.6	43.48	41.78	48.02	53.3	53.63	52.33	51.47	48.36	48.8	42.65	46.65	46.65	45.23	57.72	29.02	65	0	0
1807.3	1807.3	1807.3	1809	1809	1797.76	1797.76	1798.65	1798.65	1798.81	1796.93	1797.55	1790.56	1786.05	1785.33	1785.33	1784.98	1784.98	1784.42	1790.56	1780.56	1768.44	1759.92	1781.36	1770.43	1781.81	1791.02	1791.77	1789.78	1789.78	1786.62	1786.62	1770.43	1784.65	1784.65	1783.37	1800.21	1755.97	1821.01	1800.15	1839.7
0.72	0.72	0.72	0.72	0.72	2.35	2.35	2.35	2.35	2.35	2.35	2.35	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	1003.07	0	1195.9	-2552.41
54.93	55.37	54.07	55.43	57.16	30.84	32.39	41.73	42.6	43.32	43.98	35.32	46.49	47.43	53.19	53.62	54.14	52.84	47.82	45.62	48.88	47.58	47.46	49.48	53.66	22.62	57.32	57.5	56.59	55.72	53.26	53.69	54.53	51.94	51.94	50.79	58.82	46.59	64.98		0
1805.78	1805.78	1805.78 ¹	1807.93	1807.93	1759.18	1761.75	1784.32	1784.32	1787.97	1786.5;	1767.51	1789.28	1791.46	1791.75	1791.75	1791.95	1791.95	1792.36	1789.29	1794.8	1795.8	1796.53	1795.2	1797.85	1799.35	1800.28	1800.7	1799.6	1799.6	1797.91	1797.91	1797.85	1796.88	1796.88	1796.22	1802.76	1796.53	1820.97	1800.15	1839.7
0.72	0.72	0.72	0.72	0.72	1002.35	2.35	2.35	2.35	2.35	2.35	2.35	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	0	1198.98	-2555.49
90.79	61.2	59.9	60.62	62.36	56.2	56.64	56.21	57.08	56.21	57.5	57.07	58.77	58.76	64.39	64.83	65.26	63.96	58.76	57.91	58.76	57.03	56.59	59.19	62.23	63.54	64.85	64.86	64.41	63.54	61.8	62.23	63.1	60.93	60.93	90.09	65.32	55.73	67.44	0	0
1819.23	1819.23	1819.23	1819.91	1819.91	1817.71	1817.71	1817.73	1817.73	1817.73	1817.71	1817.71	1817.64	1817.62	1817.61	1817.61	1817.61	1817.61	1817.61	1817.64	1817.61	1817.61	1817.61	1817.61	1817.63	1817.65	1817.67	1817.69	1817.65	1817.65	1817.62	1817.62	1817.63	1817.61	1817.61	1817.61	1817.75	1817.61	1826.65	1800.15	1839.7
0.72	0.72	0.72	0.72	0.72	2.35	2.35	2.35	2.35	2.35	2.35	2.35	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.79	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	3.07	0	1746.44	-2102.95
1679	1678	1681	1680	1676	1688	1687	1688	1686	1688	1685	1686	1682	1682	1669	1668	1667	1670	1682	1684	1682	1686	1687	1681	1674	1671	1668	1668	1669	1671	1675	1674	1672	1677	1677	1679	1667	1689	1671	1800.15	
Linc 93	June 94	June 95	June 96	Junc 97	June 98	96 June	June 100	.tune 101	.hmc 102	June 103	June 104	June 105	June 106	June 107	June 108	June 109	June 110	June 111	June 112	June 113	June 114	.hinc 115	June 116	Junc 117	Junc 118	June 119	Junc 120	June 121	Junc 122	Junc 123	Junc 124	June 125	June 126	June 127	Line 128	June 129	June 130	June 131	Resvr 22	Resvr 132

ATTACHMENT 12



<u>M E M O R A N D U M</u>

TO:

Linda Jaress

Executive Consultant III

Utilities Division

FROM: Barb Wells

Information Technology Specialist

Utilities Division

THRU:

Del Smith

Engineering Supervisor

Utilities Division

DATE:

October 19, 2005

RE:

JOHNSON UTILITIES. L.L.C. (DOCKET NO. WS-02987A-05-0695)

The area requested by Johnson for an extension for water and wastewater has been plotted with no complications using the legal description provided with the application (a copy of which is attached).

Also attached is a copy of the map for your files.

:bsw

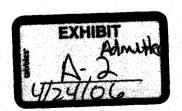
Attachments

cc: Docket Control

Mr. Richard Sallquist

Ms. Deb Person (Hand Carried)

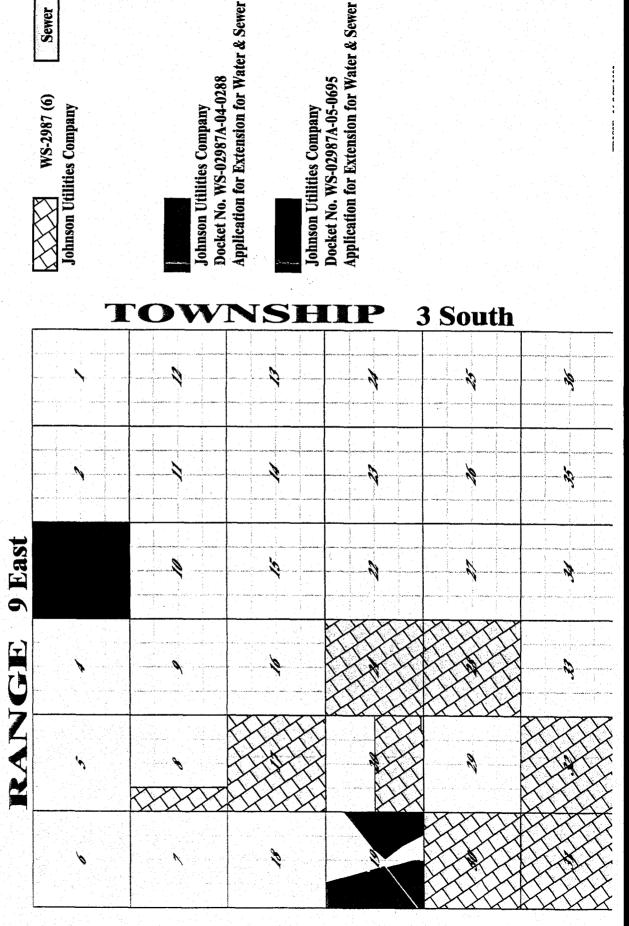
File



Sewer

WS-2987 (6)

COUNTINE Pinal



Legal Description of the Requested Area

ALL OF SECTION 3, TOWNSHIP 3 SOUTH, RANGE 9 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, PINAL COUNTY, ARIZONA

A.3

SALLQUIST, DRUMMOND & O'CONNOR, P.C.

ATTORNEYS AT LAW
TEMPE OFFICE
4500 S. LAKESHORE DRIVE
SUITE 339
TEMPE ARIZONA 85282

RICHARD L. SALLQUIST

PHONE (480) 839-5202 FACSIMILE (480) 345-0412 E-MAIL dick@sd-law.com

March 29, 2006

Colleen Ryan Arizona Corporation Commission Docket Control 1200 W. Washington Phoenix, AZ 85007

Re: Johnson Utilities, LLC; Docket No. W-02987A-05-0695; Affidavit of Publication

Dear Ms. Ryan:

The February 9, 2006 Procedural Order required the Company to file an Affidavit of Publication of the Notice of the hearing in the subject docket. Enclosed please find 15 copies of the Affidavit of Publication in that regard.

In the event you have any questions regarding this matter, please do not hesitate to call.

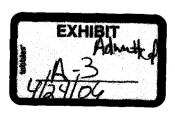
Sincerely,

Richard L. Sallquist

Enclosures

cc:

Hearing Division Utilities Division Legal Division Brian Tompsett



STATE OF ARIZONA

COUNTY OF PINAL

PUBLIC NOTICE OF HEARING ON THE APPLICATION OF JOHNSON UTILITIES COMPANY, L.L.C. FOR AN EXTENSION OF ITS EXISTING CERTIFICATE OF CONVENIENCE AND NECESSITY FOR WATER AND WASTEWATER SERVICE (Docket No. WS-02987A-05-0695)

On October 2, 2005, as subsequently amended, Johnson Utilities Company, L.L.C. ("JUC") filed an Application with the Arizona Corporation Commission ("Commission") for an extension of its existing Certificate of Convenience and Necessity to provide water and wastewater service to developments known as Silverado Ranch and Skyline View Estates. If the Application is granted, JUC would be the exclusive provider of water and wastewater service to the areas identified in the Application, and would be required by the Commission to provide service under rates and charges and terms and conditions established by the Commission. The Application is available for inspection during regular business hours at the offices of the Commission in Phoenix, at 1200 West Washington Street, Phoenix, Arizona, and at the offices of the Company, 5230 E. Shea Blvd., #200, Scottsdale, AZ 85254 and on the internet via the Commission (www.azcc.gov) using the e-docket func-

tion.
The Commission will hold a hearing on this matter beginning April 24, 2006, at 10:00 a.m., at the Commission's offices, 1200 West Washington Street, Phoenix, Arizona. Public comment will be taken on

the first day of the hearing.

The law provides for an open public hearing at which, under appropriate cir-cumstances, interested parties may intervene. Intervention shall be permitted to any person entitled by law to intervene and having a direct and substantial interest in the matter. Persons desiring to intervene must file a written motion to intervene with the Commission, which motion should be sent to the Applicants or its counsel and to all parties of record, and which, at the min-

imum, shall contain the following:

1. The name, address, and telephone number of the proposed intervenor and of any party upon whom service of documents is to be made if different than the

intervenor.

2. A short statement of the proposed intervenor's interest in the proceeding (e.g., a customer of the Applicants, a shareholder of the Applicants, etc.).

3. A statement certifying that a copy of the motion to intervene has been mailed to the Applicants or their counsel and to all parties of record in the case.

The granting of motions to intervene shall be governed by A.A.C. R14-3-105, except that all motions to intervene must be filed on or before April 3, 2006. The granting of intervention, among other things, entitles a party to present sworn evidence at hearing and to cross-examine other witnesses. Failure to intervene will not preclude any potential customer from appearing at the hearing and making a statement on such person's own behalf. You will not, however, receive any further notice of the proceeding unless requested

by you.

The Commission does not discriminate

The discriminate admission to its public meetings. Persons with a disability may request a reasonable accommodation such as a sign language interpreter, as well as request this document in an afternative format, by contacting Linda Hogan, ADA Coordinator, voice phone number

Affidavit of Publication

DONOVAN M. KRAMER SR. first be	eing dulv
sworn deposes and says: That he is a native born of	citizen of
the United States of America. over 21 years of age, t	hat he is
publisher of the Florence Reminder and Blade-Tr	ibune, a
weekly newspaper published at Florence, Pinal	County,
Arizona, on Thursday of each week; that a notice, a	tull, true
and complete printed copy of which is hereunto a was printed in the regular edition of said newspaper.	ittached,
in a supplement thereto, forTHREE consecuti	and not
the first publication thereof having been on the 2N	
•	
day ofA.D.	2006
Second publication MARCH 9,	2006
Third publication MARCH 16,	2006
Fourth publication	
Fifth publication	
Sixth publication	
FLORENCE REMINDER AND BLADE-TRI	BUNE
- Das as an ha leasure 1	01-
By DM Qu M. KRAMER SR., Publisher	12/
·	
Sworn to before me this 20	
day of March	JAU6
Mary a Jang	
Mory a Jang	
Notary Public in and for the	Country
Notary Public State of Arizona of Pinal, State of Arizon	aounty
Navajo County	•
Mary A. Lang	
Expires April 14, 2007	

Commission website 1/169 (www.azcc.gov) using the e-docket func-

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1. The name, address, and telephone number of the proposed intervenor and of any party upon whom service of documents is to be made if different than the intervenor.

2. A short statement of the proposed intervenor's interest in the proceeding (e.g., a customer of the Applicants, a shareholder of the Applicants, etc.).

3. A statement certifying that a copy of the motion to intervene has been mailed to the Applicants or their counsel and to all parties of record in the case

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by you.

The Commission does not discriminate on the basis of disability in admission to its public meetings. Persons with a disability may request a reasonable accommodation such as a sign language interpreter, as well as request this document in an alternative format, by contacting Linda Hogan, ADA Coordinator, voice phone number 602/542-3931. E-mail Lhogan@admin.cc.state.az.us. Requests should be made as early as possible to

allow time to arrange the accommodation.

IT IS FURTHER ORDERED that JUC shall publish notice of the Application in a newspaper of general circulation in the proposed extension area and shall mail to each property owner in the requested extension area a copy of the above notice by March 13, 2006.

IT IS FURTHER ORDERED that JUC shall file certification of mailing/publication as soon as practical after the mailing has been completed but not later than April 3, 2006

IT IS FURTHER ORDERED that notice shall be deemed complete upon mailing/publication of same, notwithstanding the failure of an individual to read or receive the notice.

IT IS FURTHER ORDERED that Staff

shall file a Staff Report by April 3, 2006. IT IS FURTHER ORDERED that JUC shall file any objections to the Staff Report

by April 17, 2006.
IT IS FURTHER ORDERED that the Ex (A.A.C. Rule R-14-3-113-Unauthorized Communications) applies to this proceeding as the matter is now set for

public hearing.
IT IS FURTHER ORDERED that the Administrative Law Judge may rescind, alter, amend, or waive any portion of this Procedural Order either by subsequent Procedural Order or by ruling at hearing.

Dated this 9th day of February, 2006 /s/Dwight Nodes DWIGHT D. NODES ASSISTANT CHIEF ADMINISTRATIVE LAW JUDGE No. of publications: 3; dates of publications: March 2, 9, 16, 2006.

DONOVAN M. KRAMER SR. Publisher

Sworn to before me this

Notary Public in and for the County

Notary Public State of Arizona of Pinal, State of Arizona

Navajo County Mary A. Lang

Expires April 14, 2007

SALLQUIST, DRUMMOND & O'CONNOR, P.C.

ATTORNEYS AT LAW
TEMPE OFFICE
4500 S. LAKESHORE DRIVE
SUITE 339
TEMPE, ARIZONA 85282

RICHARD L. SALLQUIST

PHONE (480) 839-5202 FACSIMILE (480) 345-0412 E-MAIL dick@sd-law.com

April 21, 2006

HAND DELIVERY

Colleen Ryan Arizona Corporation Commission Docket Control 1200 W. Washington Phoenix, AZ 85007

Re: Johnson Utilities, LLC; Docket No. W-02987A-05-0695; Affidavit of Mailing

Dear Ms. Ryan:

The February 9, 2006 Procedural Order required the Company to mail Notice of the hearing in the subject docket to the Property Owners. Enclosed please find 15 copies of an Affidavit in that regard.

In the event you have any questions regarding this matter, please do not hesitate to call.

Sincerely,

Richard L. Sallquist

Enclosures

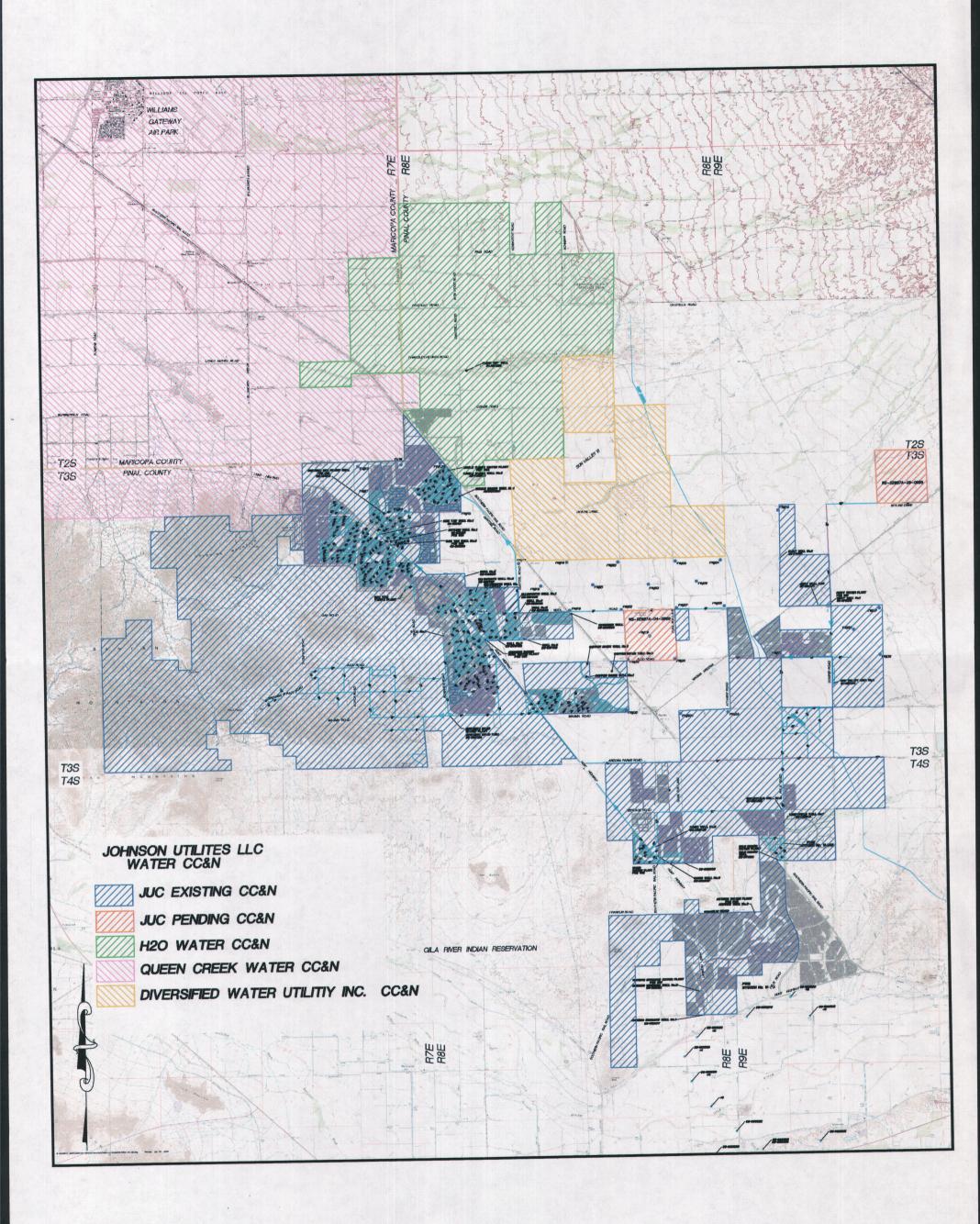
cc:

Hearing Division Utilities Division Legal Division Brian Tompsett 2006 APR 21 P 1: 28

1	Richard L. Sallquist
2	Sallquist, Drummond & O'Connor, P.C. 4500 S. Lakeshore Drive, Suite 339
	Tempe, Arizona 85282
3	Phone: (480) 839-5202 Fax: (480) 345-0412
4	Attorneys for Applicant
5	BEFORE THE ARIZONA CORPORATION COMMISSION
6	IN THE MATTER OF THE APPLICATION OF)
7	JOHNSON UTILITIES COMPANY, LLC FOR) DOCKET NO. WS-02987A-05-0695 EXTENSION OF ITS EXISTING)
	CERTIFICATE OF CONVENIENCE AND) AFFIDAVIT
8	NECESSITY.)
9	
10	STATE OF ARIZONA)
	County of Maricopa)
11	1. I am Daniel Hodges, Vice President of Johnson Utilities, L.L.C. My business address
12	1. I am Dainer Houges, vice Hesident of Johnson Chines, E.E.C. 1913 business address
13	is 5230 E. Shea Blvd, Suite 200, Scottsdale, Arizona 85252.
14	2. On or about February 15, 2006, I discussed with George Cannon of Montalbano
	Homes and Michael Cohen of Skyline View Properties, LLC, the representatives of
15	the owners of the residential subdivisions that are the subject of this Application, and
16	provided each a copy of the Procedural Order dated February 9, 2006, which
17	provided each a copy of the Procedural Order dated residually 9, 2000, which
18	Procedural Order contained the notice of the hearing in this matter.
Į	3. Further affiant sayeth naught
19	DATED this 21 day of April 2006.
20	JOHNSON UTILITIES, L.L.C.
21	
22	The state of the s
23	By: / / / / / / Daniel R. Hodges

51030.00000.1710

1	The foregoing instrument was acknowledged before me this 21 day of April 2006, by
2	
3	Daniel Hodges.
4	Notary Public
5	My Commission Expires:
6	CINDY L. GIBSON Notary Public - Arizona MARICOPA COUNTY My Comm. Exp. 12-23-2008
7	Original and fifteen copies of the
8	foregoing filed this 200 day of April, 2006 with:
9	Docket Control
10	Arizona Corporation Commission
11	1200 West Washington Phoenix, Arizona 85007
12	A copy of the foregoing filed this <u>U</u> day of April, 2006 to:
13	
14	Hearing Division Arizona Corporation Commission 1200 W. Washington
15	Phoenix, Arizona 85007
16	Utilities Division Arizona Corporation Commission
17	1200 West Washington Phoenix, Arizona 85007
18	
19	Legal Division Arizona Corporation Commission 1200 West Washington
20	Phoenix, Arizona 85007
21 22	







ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

1110 West Washington Street • Phoenix, Arizona 85007 (602) 771-2300 • www.azdeg.gov



Director

April 12, 2006

Johnson Utilities Company Brian Tompsett 5230 E. Shea Blvd., Suite 200 Scottsdale, AZ 85254

Section 11 Wastewater Treatment Plant (WWTP) Re:

Signed Aquifer Protection Permit (APP) # 103081

Dear Mr. Tompsett:

Enclosed is a signed copy of the amended APP with Fact Sheet for the above referenced facility. The permit conditions shall apply from April 10, 2006 which is the date of the Water Quality Division Director's signature, and shall be valid for the life of the facility (operational, closure, and post-closure periods).

Thank you for your cooperation in protecting the water quality of the State of Arizona. If you have any questions about the permit or need further assistance, please contact me at (800) 234-5677 ext.771-4683 or (602) 771-4683.

Sincerely,

Wastewater, Recharge, & Reuse Unit

Water Permits Section, Water Quality Division

Enclosures (2): Permit & Executive Summary

Roman Diaz, Field Services Manager, ADEQ cc:

Matthew Hodge, Mgr., Water Quality Data Unit, ADEQ

Robert Casey, Mgr., Water Quality Enforcement Unit, ADEQ

Lynne Dekarske, Administrative Assistant, Water Programs Section, ADEQ

WRR05:0240



Fact Sheet

Aquifer Protection Permit 103081
Place ID #142, LTF # 35634
SIGNIFICANT AMENDMENT
Section 11 Wastewater Treatment Plant

The Arizona Department of Environmental Quality (ADEQ) proposes to issue an amendment to the aquifer protection permit for the subject facility that covers the life of the facility, including operational, closure, and post closure periods unless suspended or revoked pursuant to Arizona Administrative Code (A.A.C.) R18-9-A213. This document gives pertinent information concerning the issuance of the permit. The requirements contained in this permit will allow the permittee to comply with the two key requirements of the Aquifer Protection Program: 1) meet Aquifer Water Quality Standards at the Point of Compliance; and 2) demonstrate Best Available Demonstrated Control Technology (BADCT). BADCT's purpose is to employ engineering controls, processes, operating methods or other alternatives, including site-specific characteristics (i.e., the local subsurface geology), to reduce discharge of pollutants to the greatest degree achievable before they reach the aquifer or to prevent pollutants from reaching the aquifer.

I. FACILITY INFORMATION

Name and Location

Permittee's Name:	Johnson Utilities LLC
Mailing Address:	Johnson Utilities LLC 5230 E. Shea Blvd.
	Suite 200
	Scottsdale, AZ 85254
Facility Name and Location:	Section 11 Wastewater Treatment Plant (WWTP) 5632 E. Hunt Hwy
	Queen Creek, AZ 85242

Regulatory Status

An Aquifer Protection Permit (APP) was issued on September 4, 1998. A Significant Amendment to the APP was issued on June 12, 2002 and a Minor Amendment was issued on February 19, 2004. An application for another Significant Amendment was received on March 8, 2005.

The following is a compliance history and list of Notice of Violations (NOVs) that were issued to the Section 11 WWTP:

- A Consent Order (CO) was issued on May 12, 1999 for failure to construct the Johnson Ranch Main Wastewater Collection, Treatment and Disposal System in accordance with plans approved by ADEQ. An Amendment to the CO was issued on October 8, 1999 to amend the compliance schedule to reflect the status of the Johnson Utilities Wastewater Treatment Facilities and the Johnson Utilities compliance with the remaining obligations described in the order. The CO and the Amendment to the CO were closed on April 26, 2000
- A Notice of Violation (NOV) was issued on September 2, 2004 for the following actions:
 - 1 Exceedances of fecal coliform during the 2nd quarter on 58 occasions.
 - 2 During the months of April, May and June of 2004, the discharge limit (DL) for fecal coliform was exceeded on 58 occasions.
 - 3 During the months of December 2003, January 2004, and February 2004 the facility had exceedances of total nitrogen.
 - 4 The permittee did not conduct verification sampling within 24 hours of becoming aware of DL exceedances.

The NOV was closed on March 15, 2005.

- An NOV was issued on January 3, 2005 for the following actions:
 - 1 During the 3rd quarter of 2004 the facility exceeded the single sample maximum of fecal coliform effluent monitoring on 29 occasions.
 - 2 During the weeks commencing on July 1, 2004, July 8, 2004, and July 29, 2004 the facility exceeded the DL for effluent monitoring for fecal coliform of 200 cfu/100 mL on at least four or more occasions.

The NOV was closed on March 15, 2005.

- An NOV was issued on April 6, 2005 for operation of a surface impoundment without an aquifer protection permit. The NOV was closed on April 28, 2005.
- An NOV was issued on July 26, 2005 for total nitrogen discharge limit exceedances. The NOV was closed on September 13, 2005.

Facility Description

This permit is for the existing plant and the new plant that will be constructed.

The existing Johnson Utilities Section 11 Wastewater Treatment Plant (WWTP) has the capacity to collect and treat up to a maximum monthly average flow of 1.6 million gallons per day (MGD) wastewater received from residences and small businesses from the central and southern portions of Johnson Utilities service area and reverse osmosis discharge from the water treatment plant located at 968 E. Hunt Hwy. The wastewater treatment process consists of headworks with a bar screen, a flow splitter box, aeration lagoons, wetland cells, ultraviolet disinfection, and an effluent pump station. All the lagoons and wetland cells of the WWTP, and the effluent storage lakes, located at the golf courses, are lined with liners that have a permeability of less than 550 gallons per day per acre. Effluent is disposed by reuse under a valid reuse permit and/or by percolation into the soil through recharge basins. Sludge and wetland harvest is hauled off-site for disposal

This amendment is for replacing the above existing wetland treatment facility of 1.6 MGD capacity with a new extended aeration WWTP of 2.0 MGD capacity. The new WWTP will be located within the existing WWTP site.

Once the new WWTP is constructed, the permittee will be authorized to operate a 2.0 million gallons per day (MGD) wastewater treatment plant (WWTP). The WWTP process will consist of head works with screens, an equalization basin, anoxic and aeration basins for nitrification- denitrification, secondary clarifiers, filters, ultraviolet (UV) disinfection system, aerobic sludge digesters, sludge belt press thickeners, and an effluent pump station. The equalization basin will also be used to store wastewater during emergencies. The WWTP will also have a provision of chemical addition in conjunction with filtration. The effluent will be disposed by recharge or reuse under a valid reuse permit. All of the sludge including screenings, grit, and scum, will be hauled off-site.

Upon construction and operation of the new WWTP, monitoring for the existing plant (Table IA and IB) will be discontinued, and the facility shall submit a closure plan for the existing plant as per Section 3.7

The existing and new facility is located in the East Salt River sub-basin, over groundwater of the Phoenix Active Management Area. The subsurface geology consists of typical alluvial deposits: the Upper Alluvial Unit (approximately 100 feet thick) contains approximately 80 percent sand and gravel; the Middle Alluvial Unit (approximately 200 feet thick) contains approximately 45 percent sand and gravel (the remaining consisting of silt and siltstone); the Lower Alluvial Unit (approximately 300 feet overlaying bedrock) contains approximately 75 percent sand and gravel. The depth to groundwater is approximately 297 feet below the WWTP and the direction of groundwater flow is towards the northeast. The WWTP is

designed and constructed according to plans approved by the ADEQ Wastewater, Recharge, & Reuse Unit.

The WWTP's can accept sewage from the Anthem at Merrill Ranch development, via vault and haul, with flows up to 3,000 gallons per day (gpd).

Amendment Description

This amendment is for replacing the existing wetland treatment facility of 1.6 MGD capacity with a new extended aeration WWTP of 2.0 MGD capacity as well as some changes to the APP for the existing WWTP. This amendment was done at the request of the applicant.

Listed below are the changes to the permit as a result of this amendment:

- 1. Section 2.1, Facility Description (existing WWTP) Removed references to reuse sites and reuse permits so that the permittee has the ability to reuse reclaimed water at multiple sites under a valid reclaimed water permit.
- 2. Section 2.1, Facility Description Stated that this amendment is for replacing the existing wetland treatment facility of 1.6 MGD capacity with a new extended aeration WWTP of 2.0 MGD capacity and changes to the APP for the existing WWTP.
- 3. Section 2.2.5, Wastewater Treatment Plant Classification: Added classification language for new WWTP (class A+).
- 4. Section 2.3, Discharge Limitations: Added language for new 2.0 MGD WWTP.
- 5. Section 4.0, Tables of Monitoring Requirements In the Discharge Monitoring Table IA (existing WWTP), removed footnote #4 requiring continuous recording meter for pH. Also added Table IC and ID for new WWTP monitoring.
- 6. Section 4.0, Tables of Monitoring Requirements Reclaimed Water Monitoring Table ID: Added table for Class A+ monitoring.
- 7. Section 4.0, Tables of Monitoring Requirements Operational Monitoring Table III (existing WWTP): Removed the "minimum of 1 foot water level depth in all lagoons" monitoring requirement. The above requirement was included in the original permit to prevent the degradation of the lagoon liner in sunlight due to the initial low flows expected at the facility. But as the WWTP is currently producing normal flows, this requirement is therefore being deleted.
- 8. Other changes include change in permit language to conform to the latest framework language.

II. BEST AVAILABLE DEMONSTRATED CONTROL TECHNOLOGY

The existing WWTP process employs nitrification-denitrification to achieve an effluent total nitrogen level of 10 mg/l and chlorine disinfection to achieve an effluent fecal coliform level of 800/200 CFU. All the lagoons and wetland cells of the WWTP, and the effluent storage lakes, located at the golf courses, are lined with liners that have a permeability of less than 550 gallons per day per acre.

For the new WWTP, the denitrified effluent will be disinfected by UV and filtered prior to disposal. The effluent will be reused on golf courses and recharged by basins. All the WWTP units will be constructed of reinforced concrete. The equalization basin/emergency storage basin will be lined with a 20 mil PVC liner. Therefore, there will be no leakage of wastewater anywhere in the WWTP. All treatment units upstream of the filters will be covered with concrete or aluminum covers and air scrubbers will be provided for odor control. All pumps, blowers, and electrical equipment will be housed within buildings for noise control. The WWTP site will be surrounded by 6 ft chain link fence.

III. COMPLIANCE WITH AQUIFER WATER QUALITY STANDARDS

Monitoring and Reporting Requirements

The existing and new facility is located over groundwater of the Phoenix Active Management Area. The depth to groundwater is approximately 297 feet below land surface (bls) and the direction of groundwater flow is generally to the northeast (toward a cone of depression cause by local pumping). The nearest points of use in the aquifer are a cluster of production/domestic wells located approximately ¼ mile northeast of the facility. A hazardous Point of Compliance (POC) was selected to be protective of all downgradient uses of the aquifer. The applicant has been collecting groundwater quality samples from an existing well located at the POC. However, this well is not a typical monitor well and so (under a permit compliance schedule) the applicant will propose a monitor well which can be used as a POC monitor well.

To ensure that the site operations do not impact either the surface water or the groundwater, discharge and groundwater monitoring will be required for total nitrogen, metals, and VOCs, as described in the permit. The facility will be required to meet the aquifer water quality standards (AWQS) in the discharge and in the groundwater. Therefore, the facility is not likely to exceed AWQS at the POC.

Point(s) of Compliance (P.O.C)

The Point of Compliance is established by the following monitoring location:

P.O.C.	P.O.C. Locations	Latitude	Longitude
1	Located at the northeastern	33° 06' 12" N	111° 30' 05" W
	corner of the site.		·

The hazardous POC will be monitored for nitrate, coliform at a monthly frequency, metals at a quarterly frequency, and organics (VOCs) at a semi-annual frequency.

Groundwater quality monitoring at the POC will be conducted from a monitor well which must first be approved under the permit compliance schedule.

IV. STORM WATER AND SURFACE WATER CONSIDERATIONS

The nearest surface water body is the Gila River, located approximately six miles south of the facility.

The facility is located outside of the 100-year flood plain.

V. COMPLIANCE SCHEDULE

Upon commencement of the operations from the new WWTP, the existing WWTP will be closed. The facility shall submit a closure plan to ADEQ within 90 days of closure of the existing WWTP. The permittee will also be required to propose a monitor well for the POC.

VI. OTHER REQUIREMENTS FOR ISSUING THIS PERMIT

Technical Capability

Johnson Utilities Company has demonstrated the technical competence necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A202(B).

The WWTP was designed as per the design report prepared and stamped, dated, and signed (sealed) by Gregory H. Brown, P.E. (Professional Engineer), Specific Engineering, Inc., dated March 04, 2005, and subsequent sealed submittals that served as additions to the design report.

ADEQ requires that appropriate documents be sealed by an Arizona registered geologist or professional engineer. This requirement is a part of an on-going demonstration of technical capability. The permittee is expected to maintain

technical capability throughout the life of the facility. A certified operator will be retained for the operation and maintenance of the WWTP.

Financial Capability

Johnson Utilities Company has demonstrated the financial responsibility necessary to carry out the terms and conditions of the permit in accordance with A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee is expected to maintain financial; capability throughout the life of the facility.

The permittee submitted a closure cost estimate of \$134,000.00. The permittee provided a statement and a report according to rule R18-9-A203(B)(2) to demonstrate financial capability.

Zoning Requirements

The Section 11 WWTP has been properly zoned for the permitted use and the permittee has complied with all Pinal County zoning ordinances in accordance with A.R.S. § 49-243(O) and A.A.C. R18-9-A201(A)(2)(c).

VII. ADMINISTRATIVE INFORMATION

Public Notice (A.A.C. R18-9-108(A))

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft permit or other significant action with respect to a permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit. This permit will be public noticed in a local newspaper after a pre-notice review by the applicant and other affected agencies.

Public Comment Period (A.A.C. R18-9-109(A))

The aquifer protection program rules require that permits be public noticed in a newspaper of general circulation within the area affected by the facility or activity and provide a minimum of 30 calendar days for interested parties to respond in writing to ADEQ. After the closing of the public comment period, ADEQ is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

Public Hearing (A.A.C R18-9-109(B))

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if the Director determines there is a significant amount of interest expressed during the 30-day public comment period, or if significant new issues arise that were not considered during the permitting process.

VIII. ADDITIONAL INFORMATION

Additional information relating to this proposed permit may be obtained from:

Arizona Department of Environmental Quality
Water Quality Division – Wastewater, Recharge & Reuse Unit
Attn: Matthew Hodge

1110 W. Washington St., Mail Code 5415B-3

Phoenix, Arizona 85007 Phone: (602) 771-4513

STATE OF ARIZONA **AOUIFER PROTECTION PERMIT NO. P-103081 PLACE ID 142, LTF 35634** SIGNIFICANT AMENDMENT

1.0 AUTHORIZATION

In compliance with the provisions of Arizona Revised Statutes (A.R.S.) Title 49, Chapter 2, Articles 1, 2 and 3, Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Articles 1 and 2, A. A. C. Title 18, Chapter 11, Article 4 and amendments thereto, and the conditions set forth in this permit, Johnson Utilities LLC is hereby authorized to operate the Johnson Utilities Section 11 Wastewater Treatment Plant located at 5632 E. Hunt Highway, Queen Creek, Arizona in Pinal County, over groundwater of the Phoenix Active Management Area (AMA), in Township 4 S, Range 8 E, NW1/4 of Section 11, Gila and Salt River meridian.

This permit becomes effective on the date of the Water Quality Division Director's signature and shall be valid for the life of the facility (operational, closure, and post-closure periods), unless suspended or revoked pursuant to A.A.C. R18-9-A213. The permittee shall construct, operate and maintain the permitted facilities:

- 1. Following all the conditions of this permit including the design and operational information documented or referenced below, and
- 2. Such that Aguifer Water Quality Standards (AWOS) are not violated at the applicable point(s) of compliance (POC) set forth below or if an AWQS for a pollutant has been exceeded in an aquifer at the time of permit issuance, that no additional degradation of the aquifer relative to that pollutant and as determined at the applicable POC occurs as a result of the discharge from the facility.

1.1 PERMITTEE INFORMATION

Facility Name:

Section 11 Wastewater Treatment Plant

Permittee:

Mailing Address:

Facility Street Address:

Johnson Utilities LLC

5230 E. Shea Blvd.

5632 E. Hunt Hwy

Suite 200

Queen Creek, AZ 85242

Scottsdale, AZ 85254

Facility Contact:

Brian Tompsett, P.E.

Emergency Telephone Number:

(480) 987-9870

Latitude: 33° 06' 06" N

Longitude: -111° 30' 16" W

Legal Description: Township 04 S, Range 08 E, Section 11 - Gila and Salt River Base Line and Meridian.

1.2 AUTHORIZING SIGNATURE

Joan Card, Director Water Quality Division

Arizona Department of Environmental Quality Signed this Off day of April ,

THIS PERMIT SUPERCEDES ALL PREVIOUS PERMITS

2.0 SPECIFIC CONDITIONS

[A.R.S. §§ 49-203(4), 49-241(A)]

2.1 Facility / Site Description

[A.R.S. § 49-243(K)(8)]

This permit is for the existing plant and the new plant that will be constructed.

The existing Johnson Utilities Section 11 Wastewater Treatment Plant (WWTP) has the capacity to collect and treat up to a maximum monthly average flow of 1.6 million gallons per day (MGD) wastewater received from residences and small businesses from the central and southern portions of Johnson Utilities service area and reverse osmosis discharge from the water treatment plant located at 968 E. Hunt Hwy. The wastewater treatment process consists of headworks with a bar screen, a flow splitter box, aeration lagoons, wetland cells, ultraviolet disinfection, and an effluent pump station. All the lagoons and wetland cells of the WWTP, and the effluent storage lakes, located at the golf courses, are lined with liners that have a permeability of less than 550 gallons per day per acre. Effluent is disposed by reuse under a valid reuse permit and/or by percolation into the soil through recharge basins. Sludge and wetland harvest is hauled off-site for disposal

This amendment is for replacing the existing wetland treatment facility of 1.6 MGD capacity with a new extended aeration WWTP of 2.0 MGD capacity as well as some changes to the APP for the existing WWTP. The new WWTP will be located within the existing WWTP site. The existing WWTP will be closed as per Section 3.7.

Once the new WWTP is constructed, the permittee will be authorized to operate a 2.0 million gallons per day (MGD) wastewater treatment plant (WWTP). The WWTP process will consist of head works with screens, an equalization basin, anoxic and aeration basins for nitrification-denitrification, secondary clarifiers, filters, ultraviolet (UV) disinfection system, aerobic sludge digesters, sludge belt press thickeners, and an effluent pump station. The equalization basin will also be used to store both sewage influent and treated effluent during emergencies. The WWTP will also have a provision of chemical addition in conjunction with filtration.

The effluent from the new WWTP will be disposed in 6 basins by recharge or reuse under a valid reuse permit. All of the sludge including screenings, grit, and scum, will be hauled off-site. The depth to groundwater is approximately 297 feet below the WWTP and the direction of groundwater flow is towards the northeast. The WWTP is designed and constructed according to plans approved by the ADEQ Wastewater, Recharge, & Reuse Unit.

The WWTP's can accept sewage from the Anthem at Merrill Ranch development, via vault and haul, with flows up to 3,000 gallons per day (gpd).

The site includes the following permitted discharging facilities:

Facility	Latitude	Longitude
Existing WWTP	33° 06' 06" N	111° 30' 16" W
New WWTP	33° 06' 06" N	111° 30' 16" W
Six (6)Recharge Basins at New WWTP	33° 06' 06" N	111° 30' 16" W

Annual Registration Fee [A.R.S. § 49-242(D)

The Annual Registration Fee for this permit is established by A.R.S. § 49-242(D) and is payable to ADEQ each year. The design flow is 2.0 MGD.

Financial Capability [A.R.S. § 49-243(N) and A.A.C. R18-9-A203]

The permittee has demonstrated financial capability under A.R.S. § 49-243(N) and A.A.C. R18-9-A203. The permittee shall maintain financial capability throughout the life of the facility. The estimated dollar amount demonstrated for financial capability is \$134,000.00. The financial capability was demonstrated through R18-9-A203(B)(2).

2.2 Best Available Demonstrated Control Technology [A.R.S. § 49-243(B) and A.A.C. R18-9-A202(A)(5)]

The WWTP's are designed to meet the treatment performance criteria for new facilities as specified in Arizona Administrative Code R18-9-B204.

The facility meets the requirements for the pretreatment by conducting monitoring as per: R18-9-B204(A)(6)(b)(iii).

All industrial hookups and other non-residential hookups to the treatment system shall be authorized according to the applicable federal, state or local regulations.

2.2.1 Engineering Design

The new WWTP was designed as per the design report prepared and stamped, dated, and signed (sealed) by Gregory H. Brown, P.E. (Professional Engineer), Specific Engineering, Inc., dated March 04, 2005, and subsequent sealed submittals that served as additions to the design report.

2.2.2 Site-specific Characteristics

Not Applicable.

2.2.3 Pre-Operational Requirements

Within 60 days of the completion of construction, the operator shall inspect the facility to verify that all components function as designed. The permittee shall provide written certification within 90 days following final completion of the construction to ADEQ Water Quality Compliance, that inspection of all components was performed. The results of inspection should also be indicated.

2.2.4 Operational Requirements

- 1. The permittee shall maintain a copy of the up-to-date O & M manual at the WWTP site at all times and shall be available upon request during inspections by ADEQ personnel.
- 2. The pollution control structures shall be inspected for the items listed in Section 4.0, Table III and IV FACILITY INSPECTION.
- 3. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and material(s) used shall be documented on the Self-Monitoring Report Form submitted quarterly to the ADEQ Water Quality Compliance.

2.2.5 Wastewater Treatment Plant Classification A.C. R18-9-703(C)(2)(a), A.A.C. R18-11-303 THROUGH 307]

The existing WWTP will produce reclaimed water meeting Class B+ Reclaimed Water Standards (A.A.C. R18-11, article 3) and can be used for any allowable use under that class.

The new WWTP will produce reclaimed water meeting Class A+ Reclaimed Water Standards (A.A.C. R18-11, article 3) and can be used for any allowable use under that class.

2.3 Discharge Limitations [A.R.S. §§ 49-201(14), 49-243 and A.A.C. R18-9-A205(B)]

- 1. The permittee is authorized to operate the existing WWTP with a maximum average monthly flow of 1.6 MGD.
- 2. The permittee is authorized to operate the new WWTP with a maximum average monthly flow of 2.0 MGD.
- 3. At any given time, the permittee shall operate either the existing WWTP or the new WWTP. Both plants shall not be operated at the same time.
- 4. The permittee shall notify all users that the materials authorized to be disposed of through the WWTP are typical household sewage and shall not include motor oil, gasoline, paints, varnishes, hazardous wastes, solvents, pesticides, fertilizers or other materials not generally associated with toilet flushing, food preparation, laundry facilities and personal hygiene.
- 5. Specific discharge limitations are listed in Section 4.0, Table IA, IB, IC and ID.

2.4 Points of Compliance (P.O.C.) [A.R.S. § 49-244]

The Point of Compliance is established by the following monitoring location:

P.O.C#	P.O.C. Locations	Latitude	Longitude
1	Located at the northeastern corner of	33° 06' 12" N	111° 30' 05" W
	the site		_

Groundwater monitoring is required at the point of compliance well.

The Director may amend this permit to designate additional points of compliance if information on groundwater gradients or groundwater usage indicates the need.

2.5 Monitoring Requirements [A.R.S. § 49-243(K)(1), A.A.C. R18-9-A206(A)]

All monitoring required in this permit shall continue for the duration of the permit, regardless of the status of the facility. All sampling, preservation and holding times shall be in accordance with currently accepted standards of professional practice. Trip blanks, equipment blanks and duplicate samples shall also be obtained, and chain of custody procedures shall be followed, in accordance with currently accepted standards of professional practice. The permittee shall consult the most recent version of the ADEQ Quality Assurance Project Plan (QAPP) and EPA 40 CFR PART 136 for guidance in this regard. Copies of laboratory analyses and chain of custody forms shall be maintained at the permitted facility. Upon request these documents shall be made immediately available for review by ADEQ personnel.

2.5.1 Discharge Monitoring

The permittee shall monitor the wastewater from the <u>existing WWTP</u> according to Section 4.0, Tables IA and IB. A representative sample of the wastewater shall be collected at the point of discharge from the effluent pump station.

The permittee shall monitor the wastewater from the <u>new WWTP</u> according to Section 4.0, Tables IC and ID. A representative sample of the wastewater shall be collected at the point of discharge from the effluent pump station.

2.5.1.1 Reclaimed Water Monitoring

For the existing and new WWTP's the permittee shall monitor the parameters listed under Table 1C and ID in addition to the routine discharge monitoring parameters listed in Table IA and 1B.

2.5.2 Facility / Operational Monitoring

Operational monitoring inspections shall be conducted according to Section 4.0, Tables III and IV.

- a. If any damage of the pollution control structures is identified during inspection, proper repair procedures shall be performed. All repair procedures and materials used shall be documented on the Self-Monitoring Report Form (SMRF) submitted quarterly to the ADEQ Water Quality Compliance. If none of the conditions occur, the report shall say "no event" for a particular reporting period. If the facility is not in operation, the permittee shall indicate that fact in the SMRF.
- b. The permittee shall submit data required in Section 4.0, Tables III and IV regardless of the operating status of the facility unless otherwise approved by the Department or allowed in this permit.

2.5.3 Groundwater Monitoring and Sampling Protocols

The permittee shall monitor the groundwater according to Section 4.0, Table II.

Static water levels shall be measured and recorded prior to sampling. Wells shall be purged of at least three borehole volumes (as calculated using the static water level) or until field parameters (pH, temperature, conductivity) are stable, whichever represents the greater volume. If evacuation results in the well going dry, the well shall be allowed to recover to 80% of the original borehole volume, or for 24 hours, whichever is shorter, prior to sampling. If after 24 hours there is not sufficient water for sampling, the well shall be recorded as "dry" for the monitoring event. An explanation for reduced pumping volumes, a record of the volume pumped, and modified sampling procedures shall be reported and submitted with the Self- Monitoring Report Form (SMRF).

2.5.4 Surface Water Monitoring and Sampling Protocols

Routine surface water monitoring is not required under the terms of this permit.

2.5.5 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona State certified laboratories can be obtained at the address below:

Arizona Department of Health Services
Office of Laboratory Licensure and Certification
250 North 17th Ave.
Phoenix, AZ 85007
Phone: (602) 364-0720

2.5.6 Installation and Maintenance of Monitoring Equipment

Monitoring equipment required by this permit shall be installed and maintained so that representative samples required by the permit can be collected. If new groundwater wells are determined to be necessary, the construction details shall be submitted to the ADEQ Water Permits Section for approval prior to installation and the permit shall be amended to include any new points.

2.6 Contingency Plan Requirements

[A.R.S. § 49-243(K)(3), (K)(7) and A.A.C. R18-9-A204 and R18-9-A205]

2.6.1 General Contingency Plan Considerations

At least one copy of the approved contingency and emergency response plan(s) submitted in the application shall be maintained at the location where day-to-day decisions regarding the operation of the facility are made. The permittee shall be aware of and follow the contingency and emergency plans.

Any alert level (AL) that is exceeded or any violation of an aquifer quality limit (AQL), discharge limit (DL), or other permit condition shall be reported to ADEQ following the reporting requirements in Section 2.7.3.

Some contingency actions involve verification sampling. Verification sampling shall consist of the first follow-up sample collected from a location that previously indicated a violation or the exceedance of an AL. Collection and analysis of the verification sample shall use the same protocols and test methods to analyze for the pollutant or pollutants that exceeded an AL or violated an AQL. The permittee is subject to enforcement action for the failure to comply with any contingency actions in this permit. Where verification sampling is specified in this permit, it is the option of the permittee to perform such sampling. If verification sampling is not conducted within the timeframe allotted, ADEQ and the permittee shall presume the initial sampling result to be confirmed as if verification sampling has been conducted. The permittee is responsible for compliance with contingency plans relating to the exceedance of an AL or violation of a DL, AQL or any other permit condition.

2.6.1.1 Overtopping of Impoundments

The permittee shall comply with the freeboard requirements as specified in Tables III and IV to prevent the overtopping of an impoundment. If an impoundment is overtopped, the permittee shall follow the requirements in Section 2.6.5.3.

2.6.2 Exceeding of Alert Levels/Performance Levels

2.6.2.1 Exceeding of Performance Levels (PL) Set for Operational Conditions

- 1. If the operational PL set in Section 4.0, Tables III and IV has been exceeded (permit condition violated) the permittee shall:
 - a. Notify the ADEQ Water Quality Compliance Section within five (5) days of becoming aware of a violation of any permit condition in Tables III and IV.
 - b. Submit a written report within thirty (30) days after becoming aware of a violation of a permit condition. The report shall document all of the following:
 - 1. A description of the violation and its cause;

- 2. the period of violation, including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue;
- 3. any action taken or planned to mitigate the effects or the violation, or the spill, or to eliminate or prevent recurrence of the violation;
- 4. any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard; and
- 5. any malfunction or failure of pollution control devices or other equipment or process.
- 2. The facility is no longer on alert status once the operational indicator no longer indicates that a PL is being exceeded. The permittee shall, however, complete all tasks necessary to return the facility to its pre-alert operating condition.

2.6.2.2 Exceeding of Alert Levels Set for Discharge Monitoring

- 1. If an AL set in Section 4.0, Table IA and IB has been exceeded, the permittee shall immediately investigate to determine the cause of the AL being exceeded. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the AL being exceeded.
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - c. Pretreatment source control for industrial pollutants.
- 2. The permittee shall initiate actions identified in the approved contingency plan referenced in Section 5.0 and specific contingency measures identified in Section 2.6 to resolve any problems identified by the investigation which may have led to an AL being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6.
- 3. Within thirty (30) days after an AL being exceeded, the permittee shall submit the laboratory results to the ADEQ Water Quality Compliance Section, Data Unit, along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.
- 4. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
- 5. Upon exceedance of the AL for Flow for two consecutive monthly averages as indicated in Table I, the permittee shall submit a letter to the addresses listed in Section 2.7.5, outlying the measures the permittee will take to prevent exceedance of a Discharge Limit (DL) for flow.

2.6.2.3 Exceeding of Alert Levels in Groundwater Monitoring

2.6.2.3.1 Alert Levels for Indicator Parameters

Not required at time of permit issuance.

2.6.2.3.2 Alert Levels for Pollutants with Numeric Aquifer Water Quality Standards

- 1. If an AL for a pollutant set in Section 4.0, Table II has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AL being exceeded. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
- 2. If verification sampling confirms the AL being exceeded or if the permittee opts not to perform verification sampling, then the permittee shall increase the frequency of monitoring to Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual' or 'Annual' respectively. In addition, the permittee shall immediately initiate an investigation of the cause of the AL being exceeded, including inspection of all discharging units and all related pollution control devices, review of any operational and maintenance practices that might have resulted in an unexpected discharge, and hydrologic review of groundwater conditions including upgradient water quality.
- 3. The permittee shall initiate actions identified in the approved contingency plan referenced in Part 5.0 and specific contingency measures identified in Part 2.6 to resolve any problems identified by the investigation which may have led to an AL being exceeded. To implement any other corrective action the permittee shall obtain prior approval from ADEQ according to Section 2.6.6. Alternatively, the permittee may submit a technical demonstration, subject to written approval by the Water Permits Section, that although an AL is exceeded, pollutants are not reasonably expected to cause a violation of an AQL. The demonstration may propose a revised AL or monitoring frequency for approval in writing by the Water Permits Section.
- 4. Within thirty (30) days after confirmation of an AL being exceeded, the permittee shall submit the laboratory results to the Water Quality Compliance Section, Data Unit along with a summary of the findings of the investigation, the cause of the AL being exceeded, and actions taken to resolve the problem.
- 5. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.
- 6. The increased monitoring required as a result of ALs being exceeded may be reduced to Section 4.0, Table II frequencies,

if the results of four sequential sampling events demonstrate that no parameters exceed the AL.

2.6.2.3.3 Alert Levels to Protect Downgradient Users from Pollutants without Numeric Aquifer Water Quality Standards

Not required at time of issuance.

2.6.3 Discharge Limitations (DL) Violations

- 1. If a DL set in Section 4.0, Table IA, IB, IC and ID has been violated, the permittee shall immediately investigate to determine the cause of the violation. The investigation shall include the following:
 - a. Inspection, testing, and assessment of the current condition of all treatment or pollutant discharge control systems that may have contributed to the violation;
 - b. Review of recent process logs, reports, and other operational control information to identify any unusual occurrences;
 - c. Sampling of individual waste streams composing the wastewater for the parameters in violation.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. The permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

2. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.4 Aquifer Quality Limit (AQL) Violation

- 1. If an AQL set in Section 4.0, Table II has been exceeded, the permittee may conduct verification sampling within 5 days of becoming aware of an AQL being exceeded. The permittee may use results of another sample taken between the date of the last sampling event and the date of receiving the result as verification.
- 2. If verification sampling confirms that the AQL is violated for any parameter or if the permittee opts not to perform verification sampling, then, the permittee shall increase the frequency of monitoring to 'Daily', 'Weekly', and 'Monthly' for constituents that have a permit monitoring frequency of 'Weekly', 'Monthly', and 'Quarterly', 'Semi-Annual' or 'Annual' respectively. In addition, the permittee shall immediately initiate an evaluation for the cause of the violation, including inspection of all discharging units and all related pollution control devices, and review of any operational and maintenance practices that might have resulted in unexpected discharge.

The permittee also shall submit a report according to Section 2.7.3, which includes a summary of the findings of the investigation, the cause of the violation, and actions taken to resolve the problem. A verified exceedance of an AQL will be considered a violation unless the permittee demonstrates within 30 days that the exceedance was not caused or contributed to by pollutants discharged from the facility. Unless the

permittee has demonstrated that the exceedance was not caused or contributed to by pollutants discharged from the facility, the permittee shall consider and ADEQ may require corrective action that may include control of the source of discharge, cleanup of affected soil, surface water or groundwater, and mitigation of the impact of pollutants on existing uses of the aquifer. Corrective actions shall either be specifically identified in this permit, included in an ADEQ approved contingency plan, or separately approved according to Section 2.6.6.

3. Upon review of the submitted report, the Department may amend the permit to require additional monitoring, increased frequency of monitoring, amendments to permit conditions or other actions.

2.6.5 Emergency Response and Contingency Requirements for Unauthorized Discharges pursuant to A.R.S. § 49-201(12) and 49-241

2.6.5.1 Duty to Respond

The permittee shall act immediately to correct any condition resulting from a discharge pursuant to A.R.S. § 49-201(12) if that condition could pose an imminent and substantial endangerment to public health or the environment.

2.6.5.2 Discharge of Hazardous Substances or Toxic Pollutants

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of suspected hazardous substances (A.R.S. § 49-201(18)) or toxic pollutants (A.R.S. § 49-243(I)) on the facility site, the permittee shall promptly isolate the area and attempt to identify the spilled material. The permittee shall record information, including name, nature of exposure and follow-up medical treatment, if necessary, on persons who may have been exposed during the incident. The permittee shall notify the ADEQ Water Quality Field Service Unit at (602) 771-4841 within 24-hours upon discovering the discharge of hazardous material which: a) has the potential to cause an AWQS or AQL to be exceeded; or b) could pose an endangerment to public health or the environment.

2.6.5.3 Discharge of Non-hazardous Materials

In the event of any unauthorized discharge pursuant to A.R.S. § 49-201(12) of non-hazardous materials from the facility, the permittee shall promptly attempt to cease the discharge and isolate the discharged material. Discharged material shall be removed and the site cleaned up as soon as possible. The permittee shall notify the ADEQ Water Quality Field Services Unit at (602) 771-4841, within 24-hours upon discovering the discharge of non-hazardous material which: a) has the potential to cause an AQL to be exceeded; or b) could pose an endangerment to public health or the environment.

2.6.5.4 Reporting Requirements

The permittee shall submit a written report for any unauthorized discharges reported under Sections 2.6.5.2 and 2.6.5.3 to ADEQ Water Quality Field Services Unit, Mail Code: 5415B-1, 1110 West Washington Street, Phoenix, AZ, within thirty days of the discharge or as required by subsequent ADEQ action. The report shall summarize the event, including any human exposure, and facility response activities and include all information specified in Section 2.7.3. If a notice is issued by ADEQ subsequent to the discharge notification, any additional information requested in the notice shall also be submitted within the time frame specified in that notice. Upon review of the submitted report, ADEQ may require additional monitoring or corrective actions.

2.6.6 Corrective Actions

Specific contingency measures identified in Part 2.6 have already been approved by ADEQ and do not require written approval to implement.

With the exception of emergency response actions taken under Section 2.6.5, the permittee shall obtain written approval from the Water Permits Section prior to implementing a corrective action to accomplish any of the following goals in response to exceeding an AL or violation of an AQL, DL, or other permit condition:

- 1. Control of the source of an unauthorized discharge;
- 2. Soil cleanup;
- 3. Cleanup of affected surface waters;
- 4. Cleanup of affected parts of the aquifer;
- 5. Mitigation to limit the impact of pollutants on existing uses of the aquifer.

Within 30 days of completion of any corrective action, the operator shall submit to the ADEQ Water Quality Compliance Section, a written report describing the causes, impacts, and actions taken to resolve the problem.

2.7 Reporting and Recordkeeping Requirements [A.R.S. § 49-243(K)(2) and A.A.C. R18-9-A206(B) and R18-9-A207]

2.7.1 Self Monitoring Report Forms (SMRF)

- 1. The permittee shall complete the SMRFs provided by ADEQ, and submit them to the Water Quality Compliance Section, Data Unit.
- 2. The permittee shall complete the SMRF to the extent that the information reported may be entered on the form. If no information is required during a quarter, the permittee shall enter "not required" on the SMRF and submit the report to ADEQ. The permittee shall use the format devised by ADEQ.
- 3. The tables contained in Sections 4.0 list the parameters to be monitored and the frequency for reporting results for groundwater compliance monitoring. Monitoring methods shall be recorded on the SMRFs.
- 4. In addition to the SMRF, the information contained in A.A.C. R18-9-A206(B)(1) and Section 6.7 shall be included for exceeding an AL or violation of an AQL, DL, or any other permit condition being reported in the current reporting period.

2.7.2 Operation Inspection / Log Book Recordkeeping

A signed copy of this permit shall be maintained at all times at the location where day-to-day decisions regarding the operation of the facility are made. A log book (paper copies, forms or electronic data) of the inspections and measurements required by this permit shall be maintained at the location where day-to-day decisions are made regarding the operation of the facility. The log book shall be retained for ten years from the date of each inspection, and upon request, the permit and the log book shall be made immediately available for review by ADEQ personnel. The information in the log book shall include, but not be limited to, the following information as applicable:

- 1. Name of inspector;
- 2. Date and shift inspection was conducted;

- 3. Condition of applicable facility components;
- 4. Any damage or malfunction, and the date and time any repairs were performed;
- 5. Documentation of sampling date and time;
- 6. Any other information required by this permit to be entered in the log book, and
- 7. Monitoring records for each measurement shall comply with R18-9 A206(B)(2).

2.7.3 Permit Violation and Alert Level Status Reporting

- 1. The permittee shall notify the Water Quality Compliance Section, Enforcement Unit in writing within five days (except as provided in Section 2.6.5) of becoming aware of a violation of any permit condition, discharge limitation or of an Alert Level being exceeded.
- 2. The permittee shall submit a written report to the Water Quality Compliance Section, Enforcement Unit within 30 days of becoming aware of the violation of any permit condition or discharge limitation. The report shall document all of the following:
 - a. Identification and description of the permit condition for which there has been a violation and a description of its cause.
 - b. The period of violation including exact date(s) and time(s), if known, and the anticipated time period during which the violation is expected to continue.
 - c. Any corrective action taken or planned to mitigate the effects of the violation, or to eliminate or prevent a recurrence of the violation.
 - d. Any monitoring activity or other information which indicates that any pollutants would be reasonably expected to cause a violation of an Aquifer Water Quality Standard.
 - e. Proposed changes to the monitoring which include changes in constituents or increased frequency of monitoring.
 - f. Description of any malfunction or failure of pollution control devices or other equipment or processes.

2.7.4 Operational, Other or Miscellaneous Reporting

The permittee shall complete the Self-Monitoring Report Form provided by the Department to reflect facility inspection requirements designated in Section 4.0, Tables III and IV and submit to the ADEQ, Water Quality Compliance quarterly along with other reports required by this permit. Facility inspection reports shall be submitted no less frequently than quarterly, regardless of operational status.

The permittee shall submit the results of water quality testing for total nitrogen, fecal coliform, turbidity and flow volumes to any of the following in accordance with A.A.C. R18-9-703(C)(2)(c):

- 1. Any reclaimed water agent who has contracted for delivery of reclaimed water from the permittee;
- 2. Any end user who has not waived interest in receiving this information.

2.7.5 Reporting Location

All SMRFs shall be submitted to:

Arizona Department of Environmental Quality Water Quality Compliance Section, Data Unit Mail Code: 5415B-1 1110 W. Washington Street Phoenix, AZ 85007 Phone (602) 771-4681

All documents required by this permit to be submitted to the Water Quality Compliance Section shall be directed to:

Water Quality Compliance Section, Enforcement Unit Mail Code: 5415B-1 1110 W. Washington Street Phoenix, AZ 85007 Phone (602) 771-4614

All documents required by this permit to be submitted to the Water Permits Section shall be directed to:

Arizona Department of Environmental Quality Water Permits Section Mail Code: 5415B-3 1110 W. Washington Street Phoenix, AZ 85007 Phone (602) 771-4428

2.7.6 Reporting Deadline

The following table lists the quarterly report due dates:

 Monitoring conducted during quarter: 	Quarterly Report due by:
January-March	April 30
April-June	July 30
July-September	October 30
October-December	January 30

2.7.7 Changes to Facility Information in Section 1.0

The Water Permits Section and Water Quality Compliance Section shall be notified within 10 days of any change of facility information including Facility Name, Permittee Name, Mailing or Street Address, Facility Contact Person or Emergency Telephone Number.

2.8 Temporary Cessation [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A209(A)]

The permittee shall give written notice to the Water Quality Compliance Section before ceasing operation of the facility for a period of 60 days or greater. The permittee shall take the following measures upon temporary cessation:

- 1. If applicable, direct the wastewater flows from the facility to another State approved wastewater treatment facility.
- 2. Correct the problem that caused the temporary cessation of the facility.
- 3. Notify ADEQ with a monthly facility Status Report describing the activities conducted on the WWTP to correct the problem

At the time of notification the permittee shall submit for ADEQ approval a plan for maintenance of discharge control systems and for monitoring during the period of temporary cessation. Immediately following ADEQ's approval, the permittee shall implement the approved plan. If necessary, ADEQ shall amend permit conditions to incorporate conditions to address temporary cessation. During the period of temporary cessation, the permittee shall provide written notice to the Water Quality Compliance Section of the operational status of the facility every three years. If the permittee intends to permanently cease operation of any facility, the permittee shall submit closure notification, as set forth in Section 2.9 below.

2.9 Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9-A209(B)]

For a facility addressed under this permit, the permittee shall give written notice of closure to the Water Quality Compliance Section of the permittee's intent to cease operation without resuming activity for which the facility was designed or operated.

2.9.1 Closure Plan

Within 90 days following notification of closure, the permittee shall submit for approval to the Water Permits Section, a Closure Plan which meets the requirements of A.R.S. § 49-252 and A.A.C. R18-9-A209(B)(1)(a).

If the closure plan achieves clean closure immediately, ADEQ shall issue a letter of approval to the permittee. If the closure plan contains a schedule for bringing the facility to a clean closure configuration at a future date, ADEQ may incorporate any part of the schedule as an amendment to this permit.

2.9.2 Closure Completion

Upon completion of closure activities, the permittee shall give written notice to the Water Permits Section indicating that the approved Closure Plan has been implemented fully and providing supporting documentation to demonstrate that clean closure has been achieved (soil sample results, verification sampling results, groundwater data, as applicable). If clean closure has been achieved, ADEQ shall issue a letter of approval to the permittee at that time. If any of the following conditions apply, the permittee shall follow the terms of Post Closure stated in this permit:

- 1. Clean closure cannot be achieved at the time of closure notification or within one year thereafter under a diligent schedule of closure actions;
- 2. Further action is necessary to keep the facility in compliance with aquifer water quality standards at the applicable point of compliance;
- 3. Continued action is required to verify that the closure design has eliminated discharge to the extent intended;
- Remedial or mitigative measures are necessary to achieve compliance with Title 49, Ch. 2:
- 5. Further action is necessary to meet property use restrictions.

2.10 Post-Closure [A.R.S. §§ 49-243(K)(6), 49-252 and A.A.C. R18-9 A209(C)]

Post-closure requirements shall be established based on a review of facility closure actions and will be subject to review and approval by the Water Permits Section.

In the event clean closure cannot be achieved pursuant to A.R.S. § 49-252, the permittee shall submit for approval to the Water Permits Section a Post-Closure Plan that addresses post-closure maintenance and monitoring actions at the facility. The Post-Closure Plan shall meet all requirements of A.R.S. §§ 49-201(29) and 49-252 and A.A.C. R18-9-A209(C). Upon approval of the Post-Closure Plan, this permit shall be amended or a new permit shall be issued to incorporate all post-closure controls and monitoring activities of the Post-Closure Plan.

2.10.1 Post-Closure Plan

A specific post closure plan may be required upon the review of the closure plan.

2.10.2 Post-Closure Completion

Not required at the time of permit issuance.

3.0 COMPLIANCE SCHEDULE [A.R.S. § 49-243(K)(5) and A.A.C. R18-9-A208]

For each compliance schedule item listed below, the permittee shall submit the required information, including a cover letter that lists the compliance schedule items, to the Water Permits Section. A copy of the cover letter must also be submitted to the Water Quality Compliance Section, Data Unit.

- 1. The permittee shall submit an annual report summarizing water quality for all forms of nitrogen, total coliform, and water level data in a tabular and graphical form. The report shall also discuss any known impacts to the surrounding groundwater and land users as a result of the recharge operations. The report shall be due on January 30th of each year for the prior year.
- 2. Within 45 days from the signature date of this permit, the permittee shall submit to the Water Permits Section a preliminary design drawing of a proposed monitor well for the facility's Point of Compliance. The proposed well shall not be constructed (or modified if existing) until the Water Permits Section has approved the well design. Upon receiving approval of the monitor well design, the permittee shall immediately begin construction (or modification) of the well.
- 3. Within 60 days of receiving approval of the well design from the Water Permits Section, the permittee shall have completed construction (or modification) of the monitor well and shall commence routine sampling per Section 4.0, Table II. The permittee shall also submit an as-built (or final design) drawing of the completed monitor well to the Water Permits Section.
- 4. Within 90 days of the signature date of the permit, the permittee shall submit a site map with the location of the facility and of an upgradient monitor well which will be used to collect upgradient groundwater quality data.
- 5. Within 15 days of receiving approval for the upgradient groundwater monitor well, the permittee shall commence sampling and analyzing the water in the upgradient well for nitrate and total nitrogen and continue sampling each month for 8 consecutive months.
- 6. Within 30 days of the final sampling event, the permittee shall submit a summary of the groundwater quality data and an analytical report on the findings and significance of the groundwater quality data collected from the upgradient groundwater monitoring well. The permittee shall also include a request to amend the permit and propose numeric aquifer quality limits for nitrate and total nitrogen in Table II. If a particular parameter exceeds the Aquifer Water Quality Standard, then the numeric Aquifer Quality Limit for that parameter shall be equal to the mean of the data plus two standard deviations.
- 7. Upon commencement of the operations from the new WWTP, the existing WWTP will be closed. The facility shall submit a closure plan for the existing WWTP to ADEQ within 90 days of cessation of the discharge from the existing WWTP. The permittee shall report annually on their plans for constructing the new WWTP.

TABLE IA ROUTINE DISCHARGE MONITORING¹

(Existing WWTP)

Sampling Point Number	Sampling Point Identification		Latitude		Longitude	
1	Influent p	ump station	33° 09	' 18" N	111° 33' 26" W	
Parameter	AL^2	DL^3	Units	Sampling Frequency		Reporting Frequency
Flow: Daily	Not Established ⁴	Not Established	MGD⁵	Daily	6	Quarterly
Flow: Average Monthly	1.5	1.6	MGD	Monthl	y ⁷	Quarterly
Flow: Reuse Daily	Not Established	Not Established	MGD	Daily		Quarterly
Flow: Reuse average Monthly	1.5	1.6	MGD	Month	ly	Quarterly

Sampling Point Number	Sampling Point Identification		Latitude		Longitude	
2	Effluent p	oump station	33° 06	' 12" N	11	11° 30' 11" W
Parameter	AL	DL	Units	Sampling Frequency		Reporting Frequency
Fecal Coliform: Single sample maximum	Not Established	23.0	CFU or MPN ⁸	Daily	,9	Quarterly
Fecal Coliform: four (4) of seven (7) samples in a week ¹⁰	Not Established	Non-Detect ¹¹	CFU or MPN	Daily	7	Quarterly
Total Nitrogen ¹² : 5-sampling rolling geometric mean.	8.0	10.0	mg/l	Monthl	y ¹³	Quarterly

Monitoring under this Table will be discontinued once the new WWTP is constructed and operational, and all the flows and liquids from the existing WWTP have been diverted to the new WWTP. The facility shall submit a letter to Water Quality Compliance Data Unit at the address specified in Section 2.7.5, informing ADEQ about the completion of the new WWTP along with the first set of SMRFs submitted for the new WWTP.

² AL = Alert Level.

³ DL = Discharge Limit.

Not Established = Monitoring required but no limits have been specified at time of permit issuance.

MGD = Million Gallons per Day.

Flow shall be measured using a continuous recording flow meter.

Monthly = Calculated value = Average of daily flows in a month.

⁸ CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

⁹ "Daily" means at least 4 samples per week must be analyzed and must meet the standard

[&]quot;Week" means a seven-day period starting on Sunday and ending on the following Saturday.

If at least four (4) of the daily samples are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the daily have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).

Total Nitrogen = Nitrate as N + Nitrite as N + Total Kieldahl Nitrogen.

TABLE IA **ROUTINE DISCHARGE MONITORING (Continued)**

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (As free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

Parameter	AL	DL	Units	Sampling	Reporting
Volatile Organic Compounds (VOCs):			Frequency	Frequency
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ¹⁴	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

A 5-Month Geometric Mean of the results of the 5 most recent samples.
 Total Trihalomethanes comprises of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

TABLE IB RECLAIMED WATER MONITORING TABLE - CLASS B+15 (Existing WWTP)

Sampling Point Number	Sampling Point Identification		Latitude	Longitude
1	Effluent pu	mp station	33° 06' 12" N	111° 30' 11" W
Parameter	DL ¹⁶	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform: Single-sample maximum	800	CFU or MPN ¹⁷	Daily ¹⁸	Quarterly
Fecal Coliform: Four (4) of seven (7) samples	last 200 ¹⁹	CFU or MPN	Daily	Quarterly

Reclaimed water monitoring under Table 1B will be performed anytime effluent is discharged to the reuse site and is in addition to routine discharge monitoring required under Table 1A. If no discharge has occurred during the reporting period, "no flow" should be entered on the SMRF.

¹⁶ DL = Discharge Limit.

¹⁷ CFU = Colony Forming Units per 100 ml; MPN = Most Probable Number per 100 ml. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

For Fecal Coliform, "daily" sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each calendar week are obtained and analyzed.

¹⁹ If at least four (4) out of the last seven (7) samples are less than 200 CFU, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). However, if at least four (4) out of the last seven (7) samples are greater than or equal to 200 CFU, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

TABLE IC ROUTINE DISCHARGE MONITORING²⁰ (New WWTP)

Sampling Point Number	Sampling Point Identification Point of discharge from the UV disinfection unit		Latitude 33° 06' 06" N		Longitude 111° 30' 16" W	
1						
Parameter	AL^{21}	DL ²²	Units	Sampling Frequency		Reporting Frequency
Flow: Daily	Not Established ²³	Not Established	MGD ²⁴	Daily ²	25	Quarterly
Flow: Average Monthly	1.9	2.0	MGD	Monthly 26		Quarterly
Flow: Reuse Daily	Not Established	Not Established	MGD	Daily		Quarterly
Flow: Reuse average Monthly	1.9	2.0	MGD	Month	ly	Quarterly

Sampling Point Number	Sampling Point Identification		Lati	Latitude		Longitude		
1				Point of discharge from 33° 06′ 06" N 111° 3 the UV disinfection unit		33° 06' 06" N 1 Units Sampling Frequency		11° 30' 16" W
Parameter	AL	DL	Units	Reporting Frequency				
Fecal Coliform: Single sample maximum	Not Established	23.0	CFU or MPN ²⁷	Daily	28	Quarterly		
Fecal Coliform: four (4) of seven (7) samples in a week ²⁹	Not Established	Non- Detect ³⁰	CFU or MPN	Daily		Quarterly		
Total Nitrogen ³¹ : 5- sampling rolling geometric mean.	8.0	10.0	mg/l	Month	y ³²	Quarterly		

Monitoring not required until the new WWTP is constructed and operational.

 $^{^{21}}$ AL = Alert Level.

DL = Discharge Limit.

Not Established = Monitoring required but no limits have been specified at time of permit issuance.

²⁴ MGD = Million Gallons per Day.

Flow shall be measured using a continuous recording flow meter.

Monthly = Calculated value = Average of daily flows in a month.

²⁷ CFU = Colony Forming Units / 100 ml sample. MPN = Most Probable Number / 100 ml sample. For CFU, a value of <1 shall be considered to be non-detect. For MPN, a value of <2.2 shall be considered to be non-detect.

²⁸ "Daily" means at least 4 samples per week must be analyzed and must meet the standard

[&]quot;Week" means a seven-day period starting on Sunday and ending on the following Saturday.

If at least four (4) of the daily samples are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). If at least four (4) of the daily have detections of fecal coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has **not** been met).

Total Nitrogen = Nitrate as N + Nitrite as N + Total Kjeldahl Nitrogen.

A 5-Month Geometric Mean of the results of the 5 most recent samples.

TABLE IC
ROUTINE DISCHARGE MONITORING (Continued)

Parameter	AL	DL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (As free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

Parameter	AL	DL	Units	Sampling	Reporting
Volatile Organic Compounds	VOCs):			Frequency	Frequency
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ³³	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

Total Trihalomethanes comprises of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

TABLE ID RECLAIMED WATER MONITORING TABLE - CLASS A+34 (New WWTP)

Sampling Point Number		Sampling I Identificat		Latitude	Longitude
1		nt of dischardisinfection		33° 06' 06" N	111° 30' 16" W
Parameter		DL^{35}	Units	Sampling Frequency	Reporting Frequency
Fecal Coliform: Single-sample maximum		23	CFU or MPN	Daily ³⁶	Quarterly
Fecal Coliform: Four (4) of seven (7) samples	last	Non- detect ³⁷	CFU or MPN	Daily	Quarterly
Turbidity ³⁸ Single reading		5	NTU ³⁹	Everyday40	Quarterly
Turbidity: 24-hour average		2	NTU	Everyday	Quarterly

Reclaimed water monitoring under Table 1D will be performed anytime effluent is discharged to the reuse site and is in addition to routine discharge monitoring required under Table 1C. If no discharge has occurred during the reporting period, "no flow" should be entered on the SMRF.

³⁵ Discharge Limit

For Fecal Coliform, "daily" sampling means every day in which a sample can practicably be obtained and delivered in sufficient time for proper analysis, provided that no less than four (4) samples in each calendar week are obtained and analyzed.

If at least four (4) out of the last seven (7) samples are non-detect, report "yes" in the appropriate space on the SMRF (indicating that the standard has been met). However, if at least four (4) out of the last seven (7) samples have detections of Fecal Coliform, report "no" in the appropriate space on the SMRF (indicating that the standard has not been met).

Turbidity shall be measured with an instrument with a signal averaging time not exceeding 120 seconds. An occasional spike due to back-flushing or instrument malfunction shall not be considered an exceedance. All exceedances must be explained and submitted to the Department with the corresponding quarterly SMRF.

Nephelometric Turbidity Units

For the single turbidity reading, "everyday" means the maximum reading during the 24-hour period.

TABLE II ROUTINE GROUNDWATER MONITORING (Both WWTP's)

Sampling Point Number	Sampling Identific	ation	Latitude		ongitude
2	Located a northeastern the faci	corner of	33° 06' 12" N	111	° 30' 05" W
Parameter	AL^{41}	AQL ⁴²	Units	Sampling Frequency	Reporting Frequency
Total Nitrogen 43:	Not Established ⁴⁴	Not Established	mg/l	Monthly	Quarterly
Nitrate-Nitrite as N	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Kjeldahl Nitrogen (TKN)	Not Established	Not Established	mg/l	Monthly	Quarterly
Total Coliform	Absence	Absence ⁴⁵	CFU or MPN ⁴⁶	Monthly	Quarterly
Indicator Parameters					
Total Dissolved Solids (TDS)	Not Established	Not Established	mg/l	Quarterly	Quarterly
Calcium	Not Established	Not Established	mg/l	Quarterly	Quarterly
Carbonate	Not Established	Not Established	mg/l	Quarterly	Quarterly
Chloride	Not Established	Not Established	mg/l	Quarterly	Quarterly
Magnesium	Not Established	Not Established	mg/l	Quarterly	Quarterly
Potassium	Not Established	Not Established	mg/l	Quarterly	Quarterly
Sodium	Not Established	Not Established	mg/l	Quarterly	Quarterly
Sulfate	Not Established	Not Established	mg/l	Quarterly	Quarterly

 $^{^{41}}$ AL = Alert Level

⁴² AQL = Aquifer Quality Limit

Total Nitrogen is equal to nitrate as N plus nitrite as N plus TKN.

Not Established = Monitoring required but no limits have been specified at time of permit

A positive result for total coliform may be verified with an analysis for fecal coliform. A positive result for fecal coliform shall be considered an exceedance of the AQL for total coliform.

⁴⁶ CFU = Colony Forming Units per 100 ml, MPN = Most Probable Number per 100 ml.

TABLE II
ROUTINE GROUNDWATER MONITORING (Continued)

Parameter	AL	AQL	Units	Sampling Frequency	Reporting Frequency
Metals (Total):					
Antimony	0.0048	0.006	mg/l	Quarterly	Quarterly
Arsenic	0.04	0.05	mg/l	Quarterly	Quarterly
Barium	1.60	2.00	mg/l	Quarterly	Quarterly
Beryllium	0.0032	0.004	mg/l	Quarterly	Quarterly
Cadmium	0.004	0.005	mg/l	Quarterly	Quarterly
Chromium	0.08	0.1	mg/l	Quarterly	Quarterly
Cyanide (As free cyanide)	0.16	0.2	mg/l	Quarterly	Quarterly
Fluoride	3.2	4.0	mg/l	Quarterly	Quarterly
Lead	0.04	0.05	mg/l	Quarterly	Quarterly
Mercury	0.0016	0.002	mg/l	Quarterly	Quarterly
Nickel	0.08	0.1	mg/l	Quarterly	Quarterly
Selenium	0.04	0.05	mg/l	Quarterly	Quarterly
Thallium	0.0016	0.002	mg/l	Quarterly	Quarterly

Parameter	AL	AQL	Units	Sampling	Reporting
Volatile Organic Compounds (VOCs):			Frequency	Frequency
Benzene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Carbon tetrachloride	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
o-Dichlorobenzene	0.48	0.6	mg/l	Semi-Annually	Semi-Annually
para-Dichlorobenzene	0.06	0.075	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,1-Dichloroethylene	0.0056	0.007	mg/l	Semi-Annually	Semi-Annually
cis-1,2-Dichloroethylene	0.05	0.07	mg/l	Semi-Annually	Semi-Annually
trans-1,2-Dichloroethylene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Dichloromethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
1,2-Dichloropropane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Ethylbenzene	0.56	0.7	mg/l	Semi-Annually	Semi-Annually
Monochlorobenzene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Styrene	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
Tetrachloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Toluene	0.8	1.0	mg/l	Semi-Annually	Semi-Annually
Trihalomethanes (total) ⁴⁷	0.08	0.1	mg/l	Semi-Annually	Semi-Annually
1,1,1-Trichloroethane	0.16	0.2	mg/l	Semi-Annually	Semi-Annually
1,2,4 - Trichlorobenzene	0.056	0.07	mg/l	Semi-Annually	Semi-Annually
1,1,2 - Trichloroethane	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Trichloroethylene	0.004	0.005	mg/l	Semi-Annually	Semi-Annually
Vinyl Chloride	0.0016	0.002	mg/l	Semi-Annually	Semi-Annually
Xylenes (Total)	8.0	10.0	mg/l	Semi-Annually	Semi-Annually

⁴⁷ Total Trihalomethanes comprises of Bromoform, Bromodichloromethane, Chloroform, and Dibromochloromethane.

TABLE III FACILITY INSPECTION

(Existing WWTP)

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good Working Condition	Weekly
Free board in all lagoons	Minimum of three feet	Monthly
Treatment Plant Components	Good Working Condition	Weekly
Resident vegetation in wetlands	Healthy and preferred species predominating	Monthly

TABLE IV FACILITY INSPECTION

(New WWTP)

Pollution Control Structures/Parameter	Performance Levels	Inspection Frequency
Pump Integrity	Good Working Condition	Weekly
Free board in all basins	Minimum of three feet	Monthly
Treatment Plant Components	Good Working Condition	Weekly

5.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. APP Application dated: August 31, 1996 (APP, signed on 9/4/98)

September 27, 2001 (Sig. Amendment-1, signed on

6/12/02)

February 19, 2004 (Minor Amendment) March 8, 2005 (Sig. Amendment-2)

2. Contingency Plan, dated: August 31, 1996 (APP)

September 27, 2001 (Sig. Amendment-1) March 8, 2005 (Sig. Amendment-2)

3. Final Hydrologist Report dated: October 11, 2005 (Sig. Amendment-2)

4. Final Engineering Report dated: October 5, 2005 (Sig. Amendment-2)

5. Public Notice dated: July 2, 1998 (APP)

March 1, 2002 (Sig. Amendment-1) November 2, 2005 (Sig. Amendment-2)

6. Re-Public Notice dated: November 14, 2005 (Sig. Amendment-2)

7. Public Hearing, dated: N/A

8. Responsiveness Summary, dated: N/A

6.0 NOTIFICATION PROVISIONS

6.1 Annual Registration Fees

The permittee is notified of the obligation to pay an Annual Registration Fee to ADEQ. The Annual Registration Fee is based upon the amount of daily influent or discharge of pollutants in gallons per day as established by A.R.S. § 49-242(D).

6.2 Duty to Comply [A.R.S. §§ 49-221 through 263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of Title 49, Chapter 2, Articles 1, 2 and 3 of the Arizona Revised Statutes, Title 18, Chapter 9, Articles 1 through 4, and Title 18, Chapter 11, Article 4 of the Arizona Administrative Code. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

6.3 Duty to Provide Information [A.R.S. §§ 49-243(K)(2) and 49-243(K)(8)]

The permittee shall furnish to the Director, or an authorized representative, within a time specified, any information which the Director may request to determine whether cause exists for amending or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

6.4 Compliance with Aquifer Water Quality Standards [A.R.S. §§ 49-243(B)(2) and 49-243(B)(3)]

The permittee shall not cause or contribute to a violation of an aquifer water quality standard at the applicable point of compliance for the facility. Where, at the time of issuance of the permit, an aquifer already exceeds an aquifer water quality standard for a pollutant, the permittee shall not discharge that pollutant so as to further degrade, at the applicable point of compliance for the facility, the water quality of any aquifer for that pollutant.

6.5 Technical and Financial Capability [A.R.S. §§ 49-243(K)(8) and 49-243(N) and A.A.C. R18-9-A202(B) and R18-9-A203(E) and (F)]

The permittee shall have and maintain the technical and financial capability necessary to fully carry out the terms and conditions of this permit. Any bond, insurance policy, trust fund, or other financial assurance mechanism provided as a demonstration of financial capability in the permit application, pursuant to A.A.C. R18-9-A203(D), shall be in effect prior to any discharge authorized by this permit and shall remain in effect for the duration of the permit.

6.6 Reporting of Bankruptcy or Environmental Enforcement [A.A.C. R18-9-A207(C)]

The permittee shall notify the Director within five days after the occurrence of any one of the following:

- 1. The filing of bankruptcy by the permittee.
- 2. The entry of any order or judgment not issued by the Director against the permittee for the enforcement of any environmental protection statute or rule.

6.7 Monitoring and Records [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A206]

The permittee shall conduct any monitoring activity necessary to assure compliance with this permit, with the applicable water quality standards established pursuant to A.R.S. §§ 49-221 and 49-223 and §§ 49-241 through 49-252.

6.8 Inspection and Entry [A.R.S. §§ 49-203(B) and 49-243(K)(8)]

In accordance with A.R.S. §§ 41-1009 and 49-203(B), the permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law, to enter and inspect the facility as reasonably necessary to ensure compliance with Title 49, Chapter 2, Article 3 of the Arizona Revised Statutes, and Title 18, Chapter 9, Articles 1 through 4 of the Arizona Administrative Code and the terms and conditions of this permit.

6.9 Duty to Modify [A.R.S. § 49-243(K)(8) and A.A.C. R18-9-A211]

The permittee shall apply for and receive a written amendment before deviating from any of the designs or operational practices authorized by this permit.

6.10 Permit Action: Amendment, Transfer, Suspension & Revocation [A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

This permit may be amended, transferred, renewed, or revoked for cause, under the rules of the Department.

The permittee shall notify the Water Permits Section in writing within 15 days after any change in the owner or operator of the facility. The notification shall state the permit number, the name of the facility, the date of property transfer, and the name, address, and phone number where the new owner or operator can be reached. The operator shall advise the new owner or operators of the terms of this permit and the need for permit transfer in accordance with the rules.

7.0 ADDITIONAL PERMIT CONDITIONS

7.1 Other Information [A.R.S. § 49-243(K)(8)]

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit the correct facts or information.

7.2 Severability

[A.R.S. §§ 49-201, 49-241 through 251, A.A.C. R18-9-A211, R18-9-A212 and R18-9-A213]

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. The filing of a request by the permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

7.3 Permit Transfer

This permit may not be transferred to any other person except after notice to and approval of the transfer by the Department. No transfer shall be approved until the applicant complies with all transfer requirements as specified in A.A.C. R18-9-A212(B) and (C).

Johnson Utilities Company - System #11-128

_									,								,						_	,	_			_
Option #2	Well #4+#5	"blended & treated"	Plus Others	ESTIMATED	PRODUCTION	CAPABILITY	PER WELL IN:	(gal/day)		0	0	0	1,320,480	50,400	158,400	158,400	158,400	1,440,000	1,440,000	1,584,000	1,008,000					518,400	518,400	
Option #1	Well #4		"Untreated"	ESTIMATED	PRODUCTION	CAPABILITY	PER WELL IN:	(gal/day)		720,000	0	0	0	50,400	158,400	158,400	158,400	1,440,000	1,440,000	1,584,000	1,008,000	COMPLETED		COMPLETED		518,400	518,400	
		WELLS		ESTIMATED	TOTAL FLOW PER	WELL	including R.O. loss	(gal/min)		200	0	1000	917	35	110	110	110	1000	1000	1100	700	1000		1000	1000	360	360	
	IICE AREA	DDUCTION		ADEQ	FILE	NUMBER	•			980006	980006	900086	900086	2001037	20010611	20010611	20010611	20020539	20020489	20050258	20050161	20050621	20050622	20050506	20050506	20010431	20030384	
	TIES SERV	R ALL PRO		LOCATED	WITHIN	THE AREA	OF:			Johnson	Johnson	Johnson	Johnson	Johnson	Oasis	Oasis	Oasis	Skyline	Circle Cross	Morning Sun	San Tan Hts.	Johnson	lohnson	Johnson	Johnson	SunValley	SunValley	L
	NSON UTILI	SOMED FO		Well	Identification	Number				55-558445	55-558445	55-559843	Misc.	55-586189	55-582085	55-582087	55-582088	55-621462	55-599026	55-201429	55-598836	55-209384	55-627099	55-622014	55-622013	55-570372	55-594071	
	PRODUCTION OPTIONS WITHIN JOHNSON UTILITIES SERVICE AREA	Note: LOW NITRATES HAVE BEEN ASSUMED FOR ALL PRODUCTION WELLS	EXCEPT FOR WELL #4.	Well Identification	Name	System # 11-128	•		Production:	J.R. Well No. 4 (untreated)	J.R. Well No. 4 (Treated with R.O. Unit)	J.R. Well #4 plus #5 (blended)	I R Well #4 plus #5 (blended & treated)	Edwards Road Well No. 2 (untreated) (1)	Oasis Well No. 1 (untreated)(2)	Oasis Well No. 3 (untreated)(2)	Oasis Well No. 2 (untreated)(2)	Skyline (untreated) (3)	Circle Cross Well #1 (untreated)	Morning Sun Farms (4)	San Tan Heights #2 (5)	Hardison Well #1 (6)	Ellsworth Well #1	Crestfield Well #1 (6)	Crestfield Well #2	Rickie Well #1	Rickie Well #3	

	TOTAL ESTIMATE	WELL PRO	TOTAL ESTIMATED WELL PRODUCTION (GPM)	5,385	5,802	
				Storage	32,134	
				Capacity	Units served @	
				(Gallons)	260 Gallunit/day	
-	nasudof	980115		200,000		

8,354,880 518,400 518,400

7,754,400

TOTAL ESTIMATED WELL PRODUCTION (GPD)

1 ON Inater Marter Plant No. 1	nosudof	980115		200,000	_
John John Marie Day No. 1	nosuhof	20000556		100,000	
JOHNSON MAINT WAREL FIRM NO.	Oasis	20000349		500,000	,-
Oasis water Plain No. 1		20040077		000	_
Edwards Road Water Plant No. 2	nosuuor	20010377		non'nc	
Circle Orace Water Plant No. 1	Circle Cross	\$ 20020489		200,000	_
	San Tan	20020539		1 000 000	_
San Tan Water Plant No. 1	on lan				7
Droduction from 1 R Well #4 plus #5 (blended)	Johnson	900086		1,320,480	_
L'Oddens and a series	Vollot,	2002033		50.00	_
Rickie Water Plant No.	Sull Valley	2002033		220,25	_
	TOTAL ESTIMAT	TED STORAGE	TOTAL ESTIMATED STORAGE CAPACITY (Gallons)	4,020,480	
I ESS FIRE STORAG	1 ESS FIRE STORAGE CAPACITY AS REQUIRED BY FIRE DISTRICT (Gallons)	UIRED BY FIRE	EDISTRICT (Gallons)	-120,000	
MELLS #4 & #5 OPERATING (Gallons/day)	LE CROSS or WELLS	#4 & #5 OPER	ATING (Gallons/day)	5,594,400	
VEEL TROBOUNDED TO VALUE OF A DAY SY	CETMATER A DAY SYSTEM PROPUCTION and STORAGE CAPACITY (Gallons)	and STORAGE	CAPACITY (Gallons)	9,494,880	

EXHIBIT

מילים לילים	36,519
ESTIMATED 1 DAY SYSTEM PRODUCTION and STONAGE CAPACITY (Canons)	Units served @ 260 Gal/unit/day 36,519

^(*) Pending indicates that the improvement plans have been submitted to ADEQ.

Table "A'

⁽¹⁾ Indicates actual maximum flow data
(2) Indicates actual maximum flow & permitted data
(3) Indicates actual & permitted data
(4) ADEQ approval of construction issued June 3, 2005.
(5) ADEQ approval of construction issued April 18, 2005.

Johnson Utilities Company - System #11-128

Well Identification Name	Well Identification	LOCATED	ADEQ FILE	ARSENIC LEVEL	POE
System # 11-128	Number	THE AREA OF:	NUMBER	MG/L	·
Production:					
J.R. Well No. 4 (untreated)	55-558445	Johnson	980006	0.003	1#
J.R. Well No. 4 (Treated with R.O. Unit)	55-558445	Johnson	980006		1#
J.R. Well #4 plus #5 (blended)	55-559843	uosuqof	980006	0.005	1#
I R Well #4 plus #5 (blended & treated)	Misc.	Johnson	980006	0.005	l#
Edwards Road Well No. 2 (untreated)	55-586189	nosuhof	2001037	0.002	L#
Skyline (untreated)	55-621462	Skyline	20020539	0.003	£#
Circle Cross Well #1 (untreated)	55-599026	Circle Cross	20020489	0.002	#4
Morning Sun Farms	55-201429	Morning Sun	20050258	0.004	9#
San Tan Heights #2	55-598836	San Tan Hts.	20050161	0.004	42
Oasis Well #1 plus#2 plus #3 (blended)	Misc.	Oasis	20000349	0.003	#2
	Misc.	Sun Valley	20020333	0.003	8#